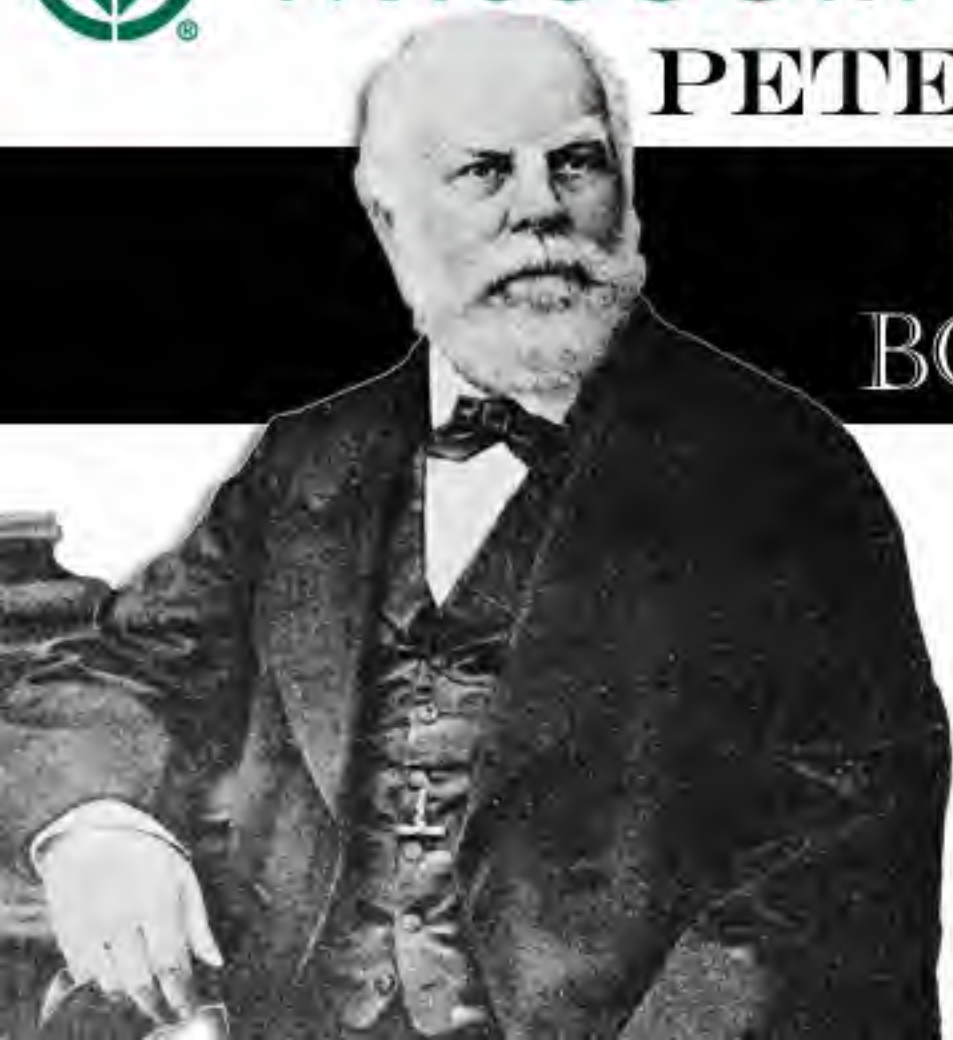


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BOTANICAL NOTEBOOKS



Pagination Note:

Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Juniper. occidentalis
Sierra valley

March 7 1875

Simmon 1875

x 30



x 280



some hypoderm cells
few and small

receptacle
or cell

surrounding empty (seeding)
and ~~not~~ chlorophyll cells



0 1 2 3 4 5 6 7 8 9 10

cm

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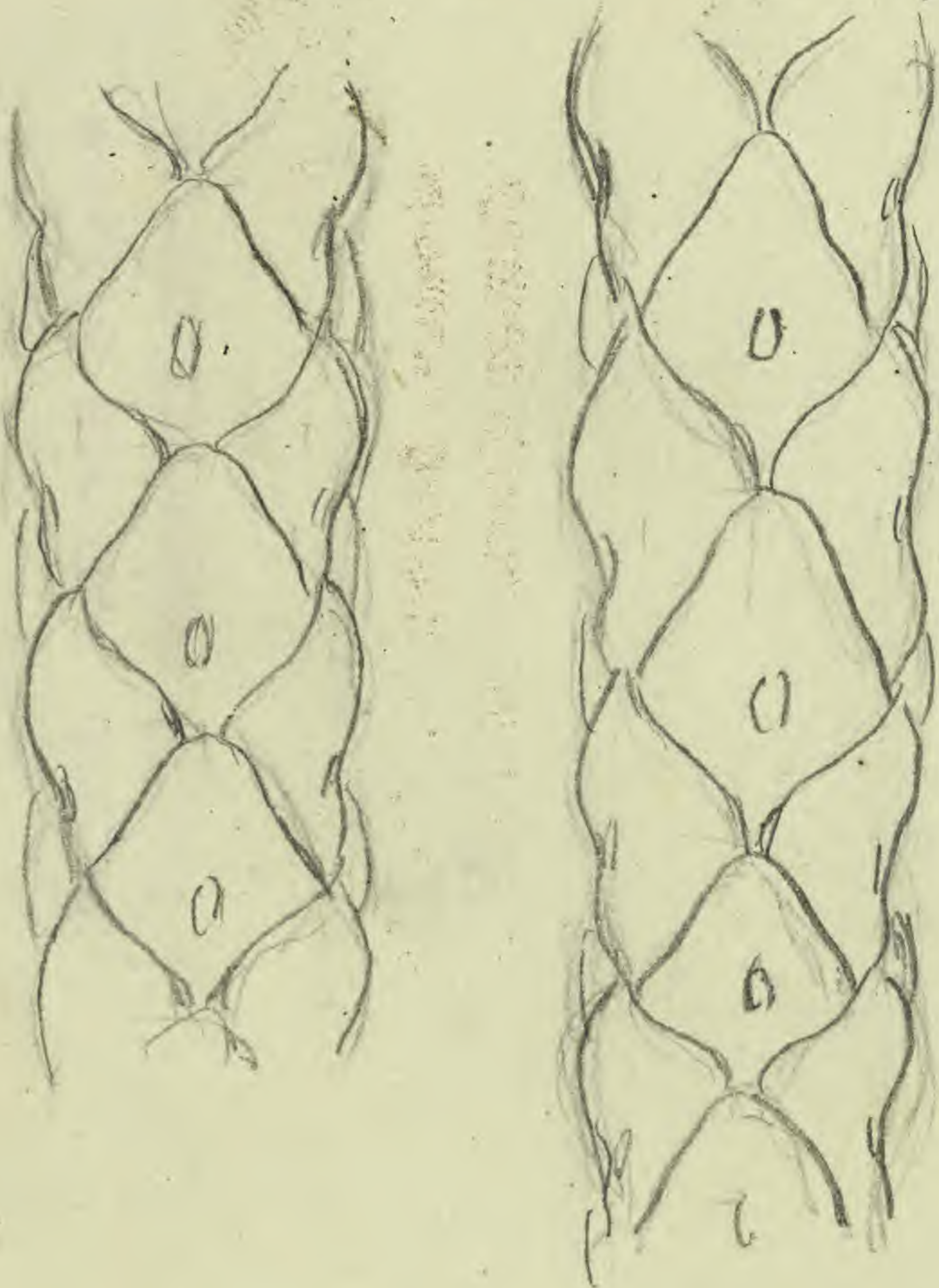
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Juniperus occidentalis

June 22 1876

Haage & Schenck, Export mis. 1876

x 40



edge of
leaf
x 220



scales = 3's



usually 2 very resinous
seeds



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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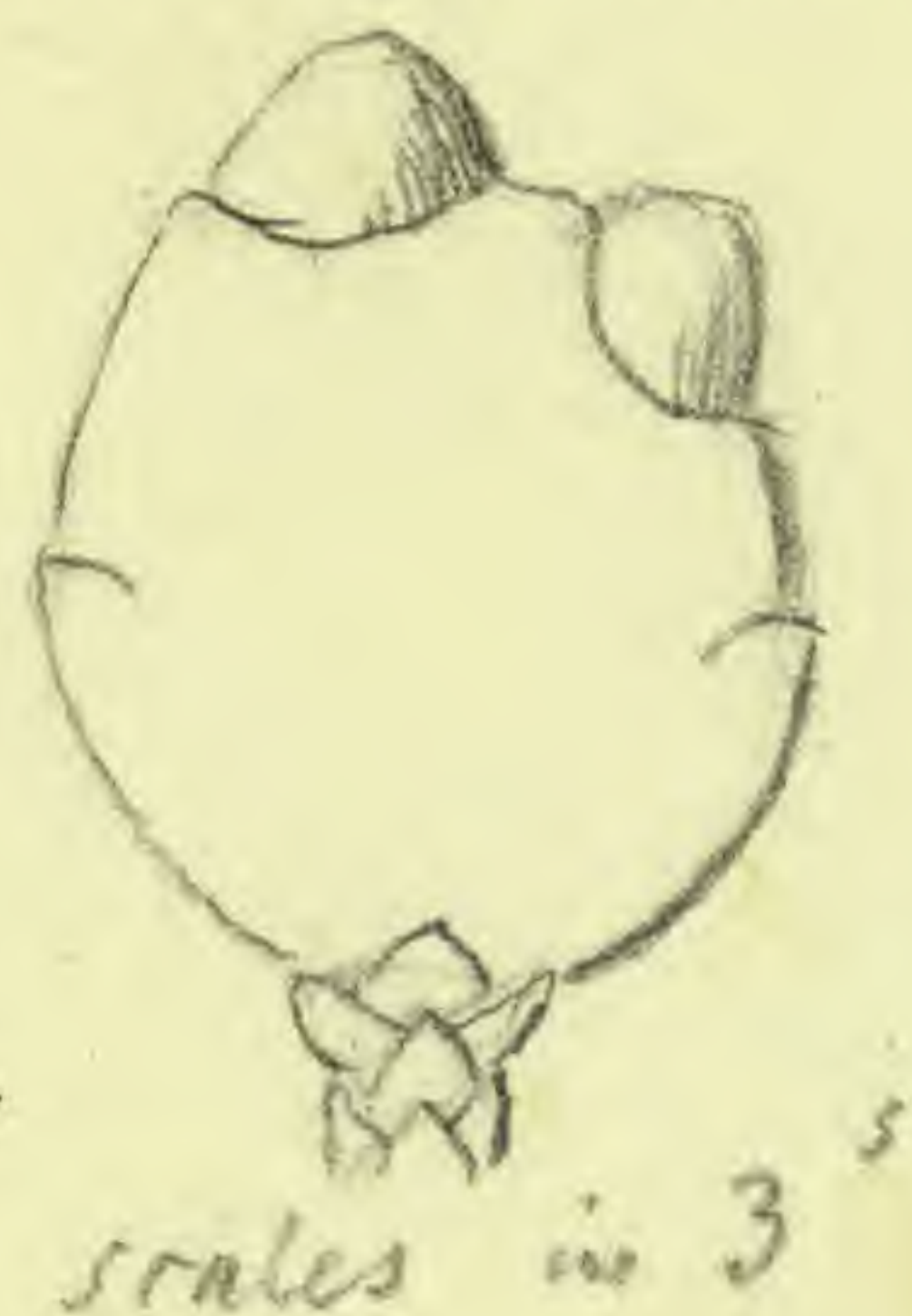
The Bridges plants, after this
death distrib. by Smithsonian
Inst - No 328

Juniperus occidentalis
California, Bridges - Hb Torrey

Febr 15th 1874

x 2

fruit very immature



Protruding seeds

Leaves always
in 3's

same as *Bolander*
mono plant

berries immature



3 seeds at
different elevations
only one protruding

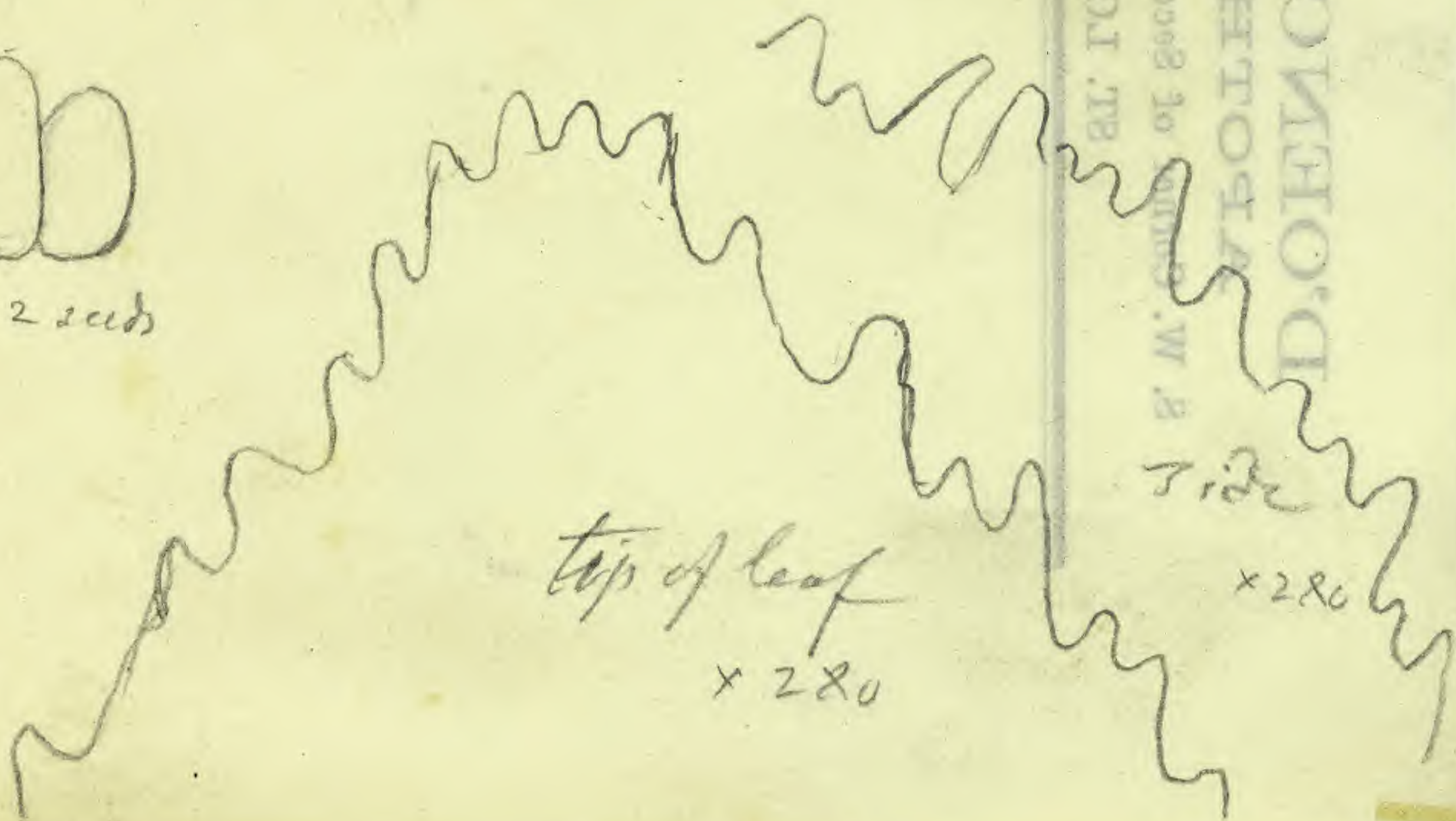
2 seeds

tip of leaf

x 280

Tip

x 280



0 1 2 3 4 5 6 7 8 9 10

cm

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GEORGE ENGELMANN PAPERS

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cm

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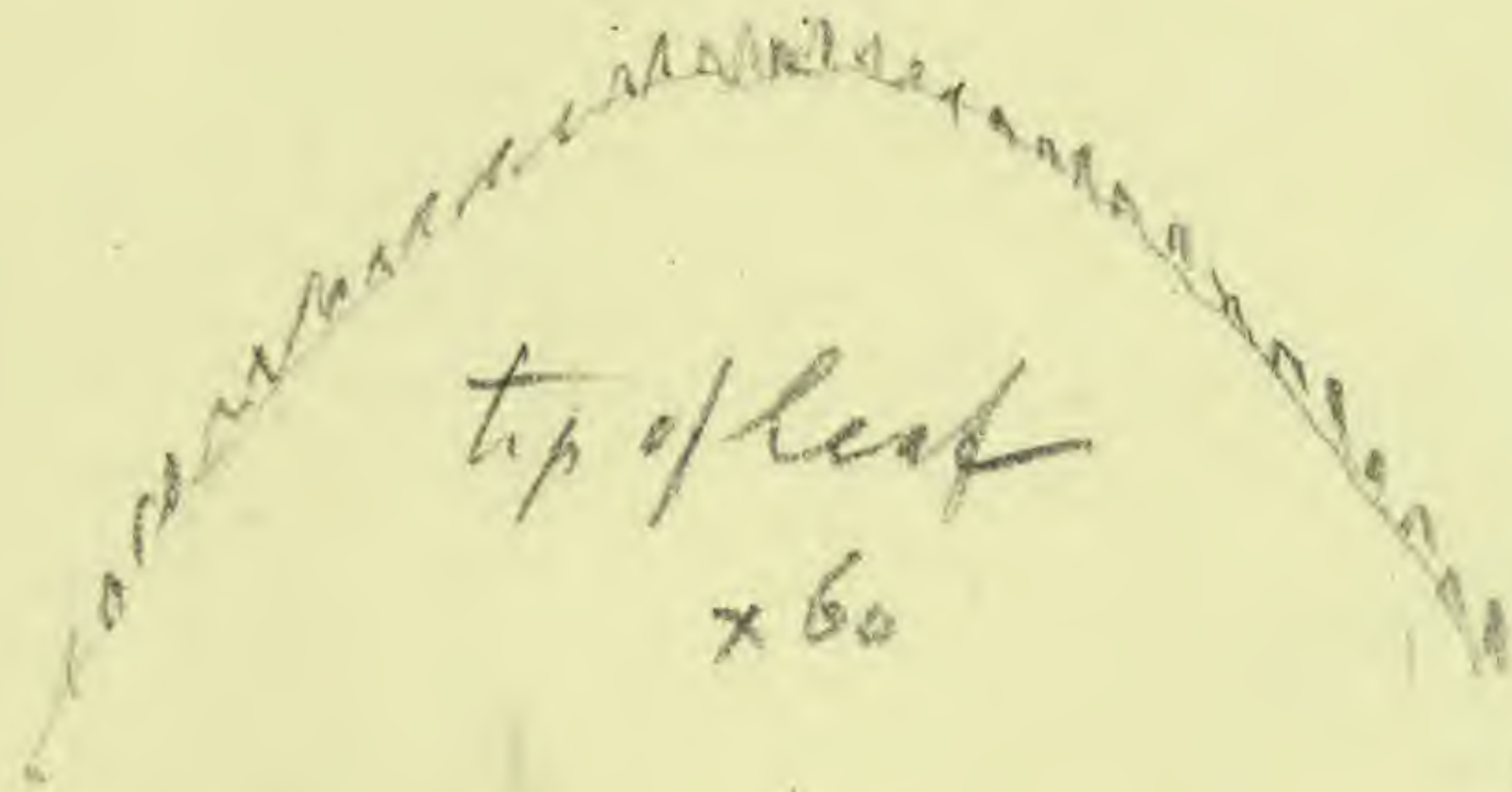
MISSOURI
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GARDEN

ex Herb. Kew

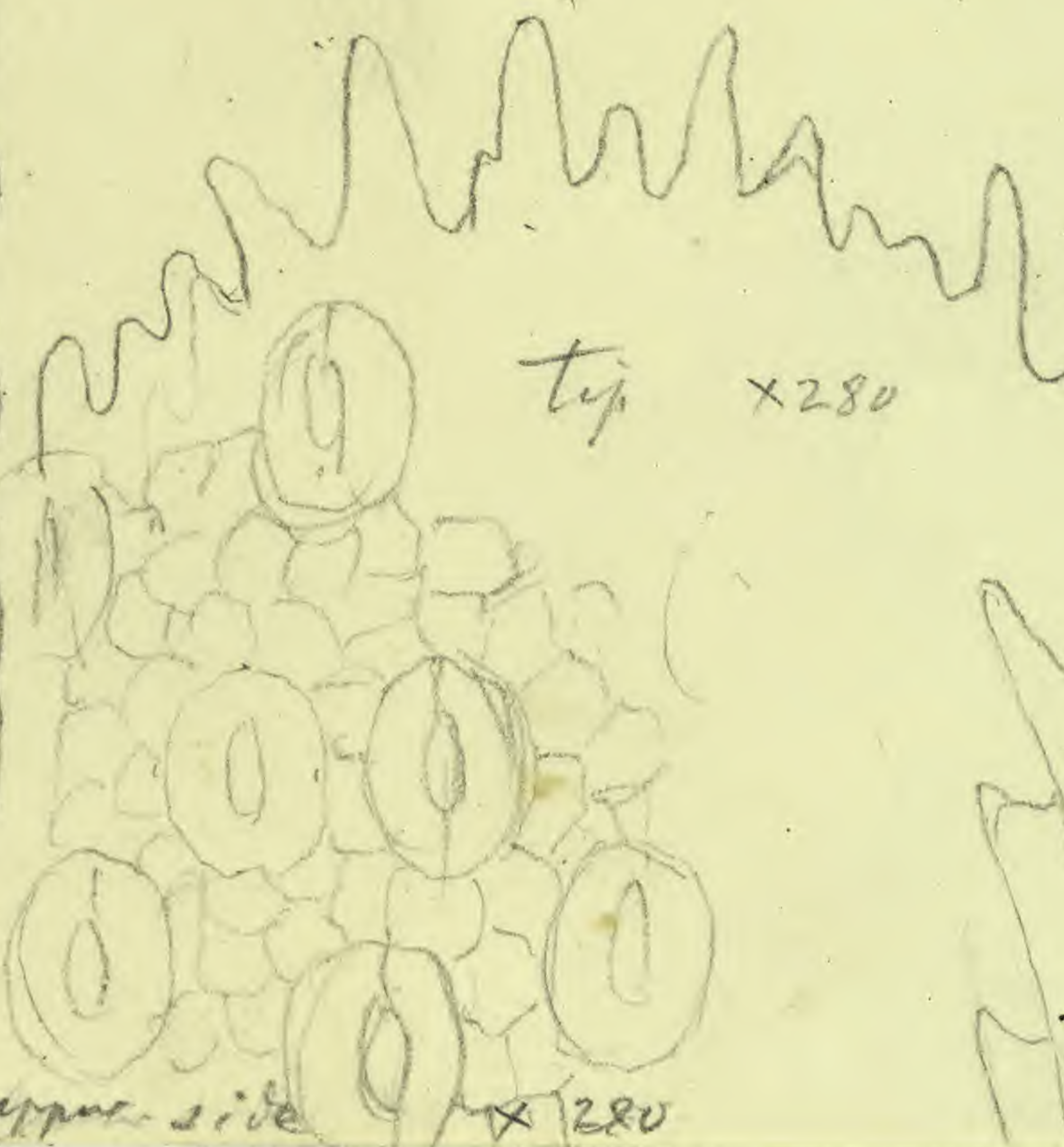
Juniperus occidentalis Hooker & Ar. 2.

March 3
1874

Common on higher parts of the Columbia at base of Rocky Mts
on the east side: attains large size, 60-80 feet, ²⁻³ feet:
diam. Douglas



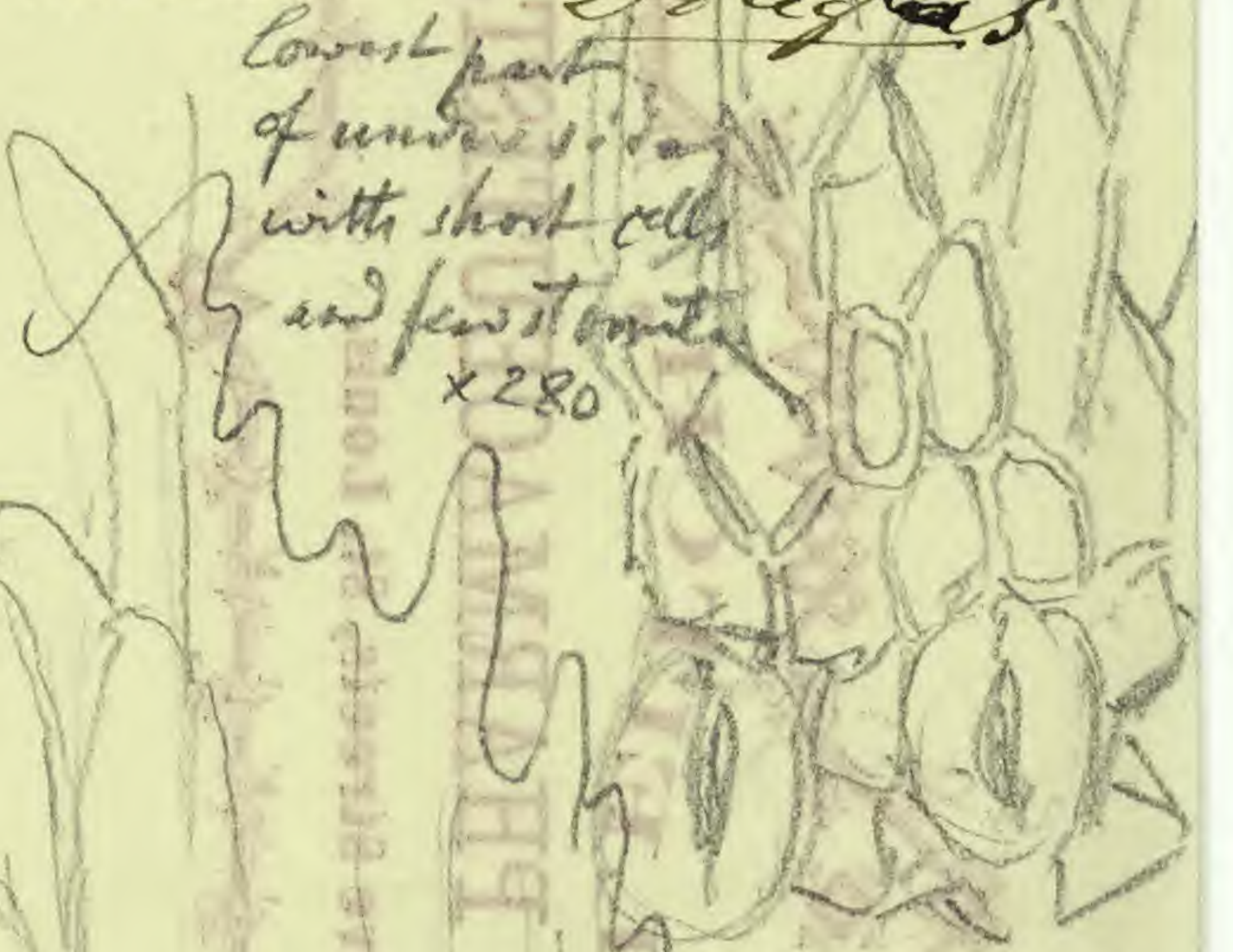
tip of leaf
x 60



tip x 280

upper side

x 280



lowest part
of underside
with short cells
and few stomata
x 280

epidermis shorter
on under side x 280
edge

edge of leaf
x 280



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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Junip. occid.

Dec 22 1873

Colorado No 2

April 18 1873

E L Greene

very stout small compact tree

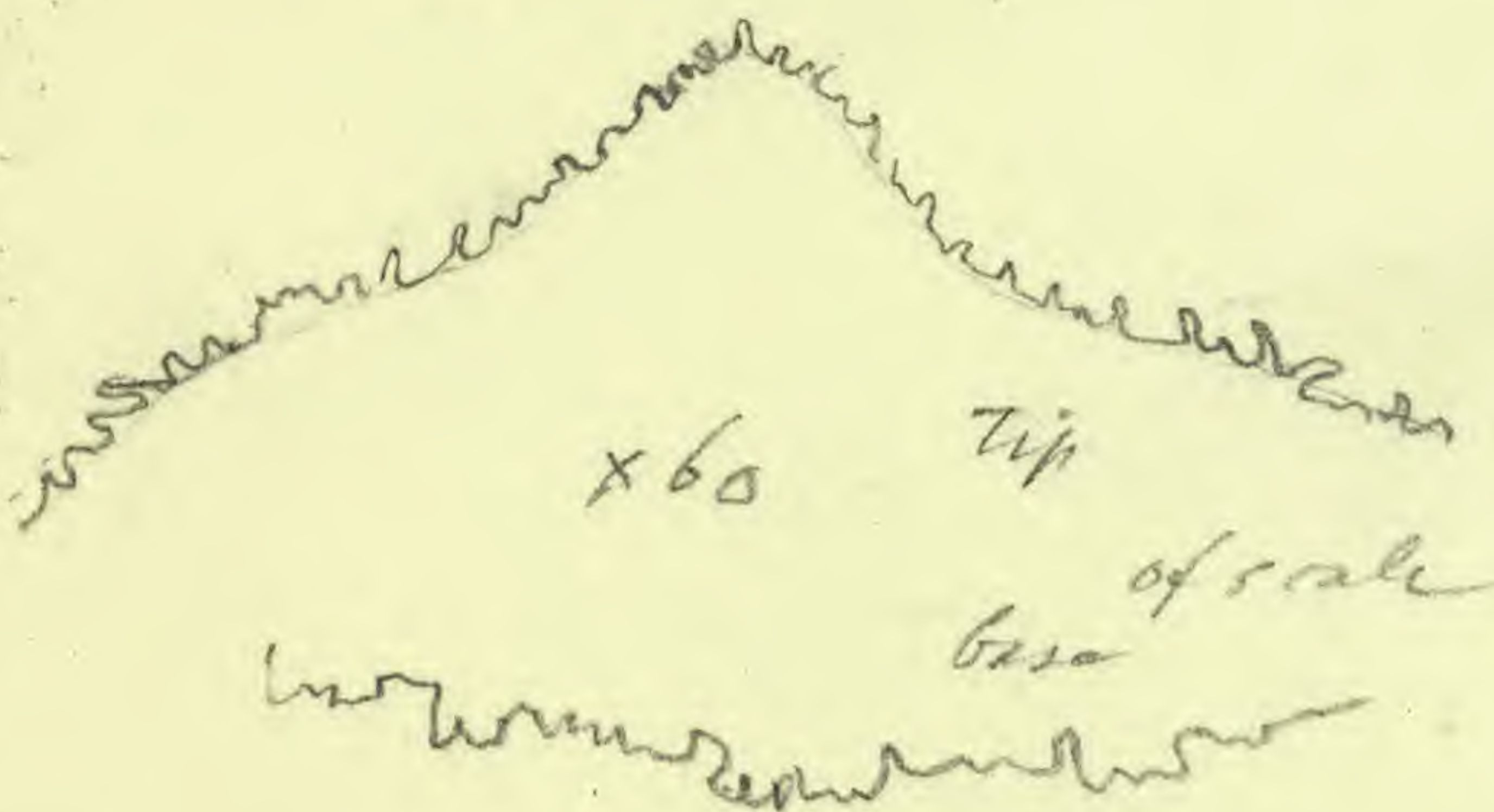
x10



x10



edge of scale x280



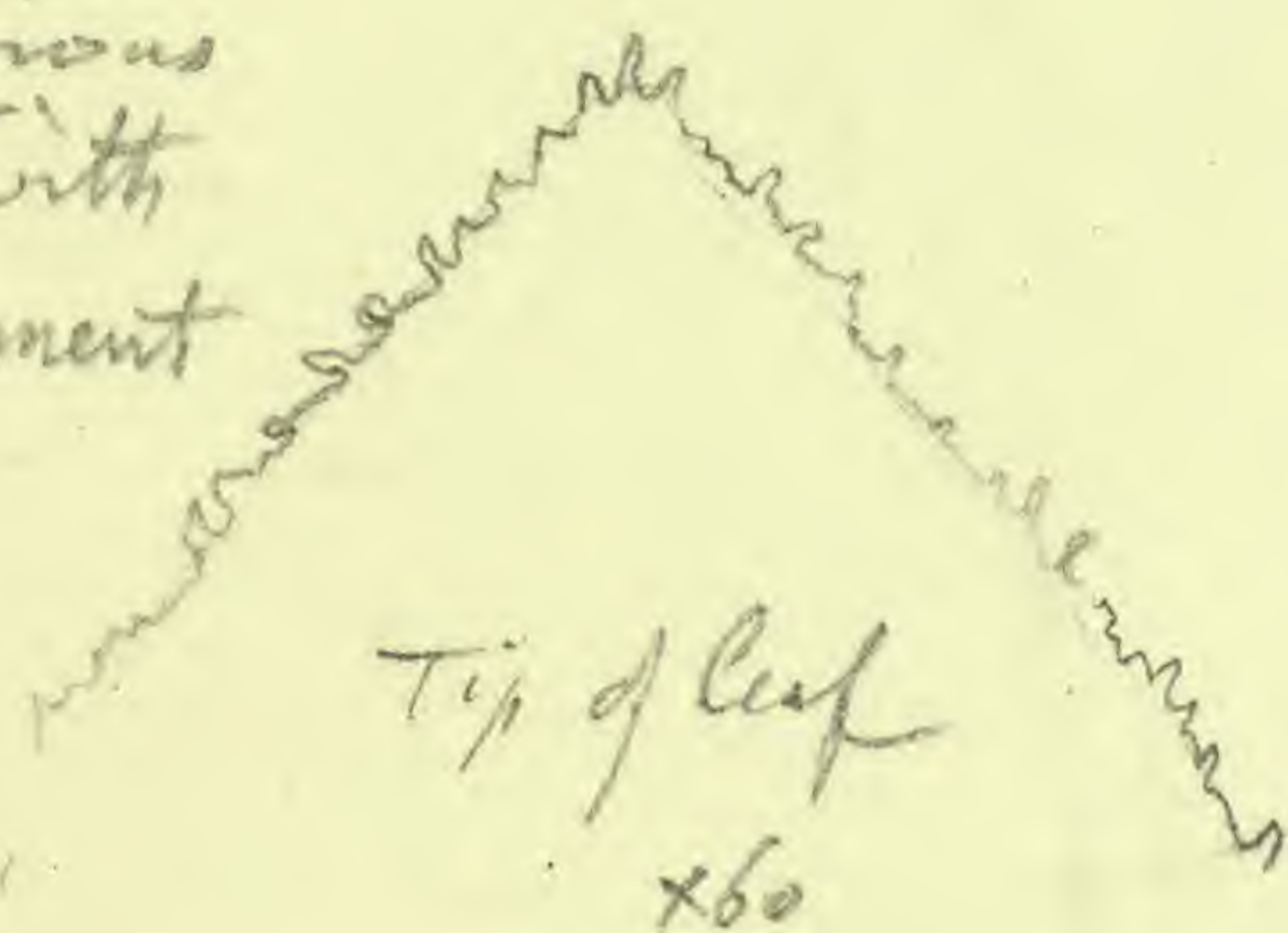
x60

Tip

of scale

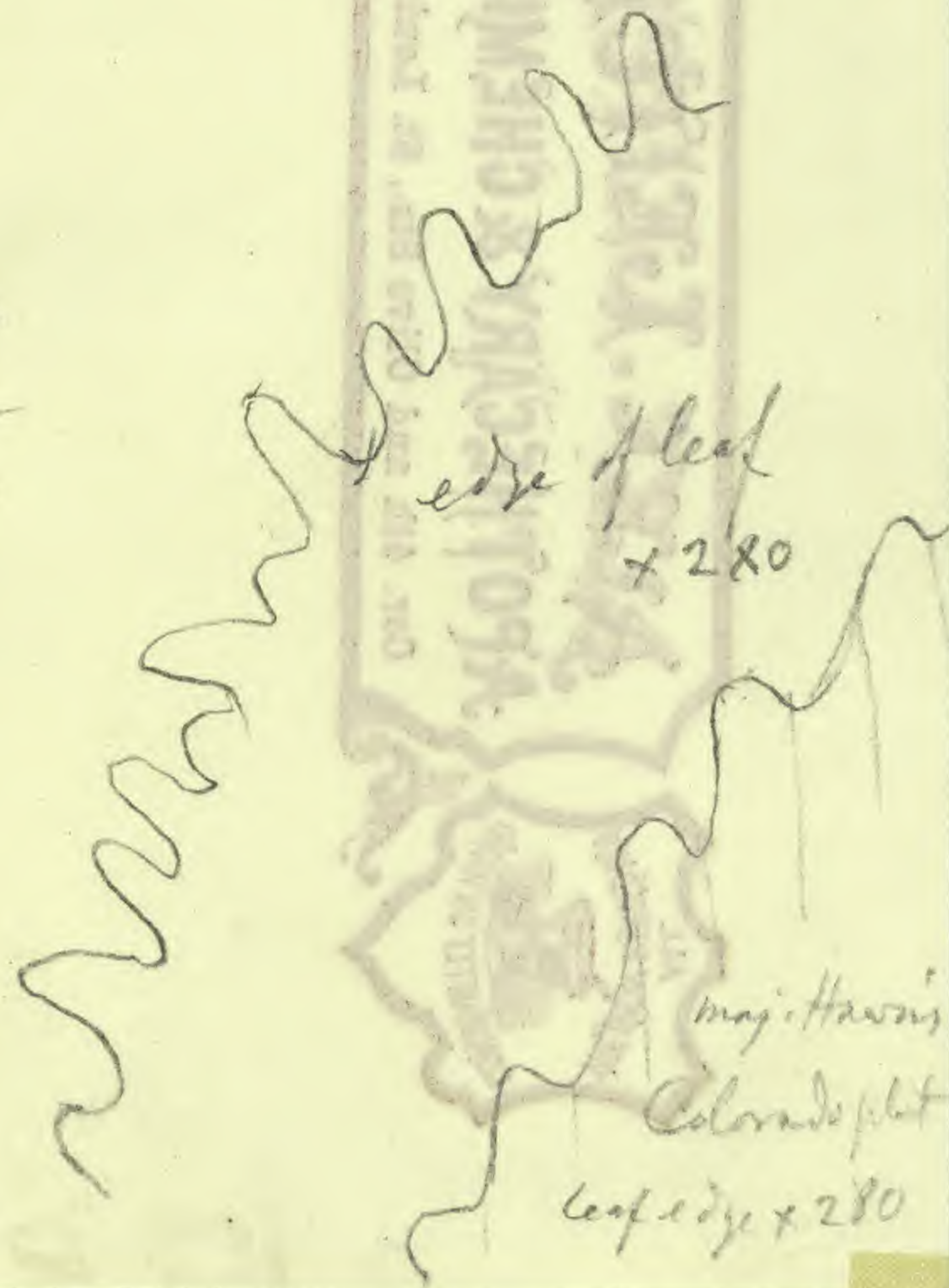
base

seen a 6-farious
branchlet with
4-farious ament



Tip of leaf

x60



edge of leaf

x280

Major Harris

Colorado plot

leaf edge x280

branchlet 4-farious
bearing 4-farious
♂ ament
offete, rosette

principal branchlets 6-farious also some smaller ones



0 1 2 3 4 5 6 7 8 9 10

cm

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CHEMIST

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ALL THE NEW REMEDIES
CONSTANTLY ON HAND

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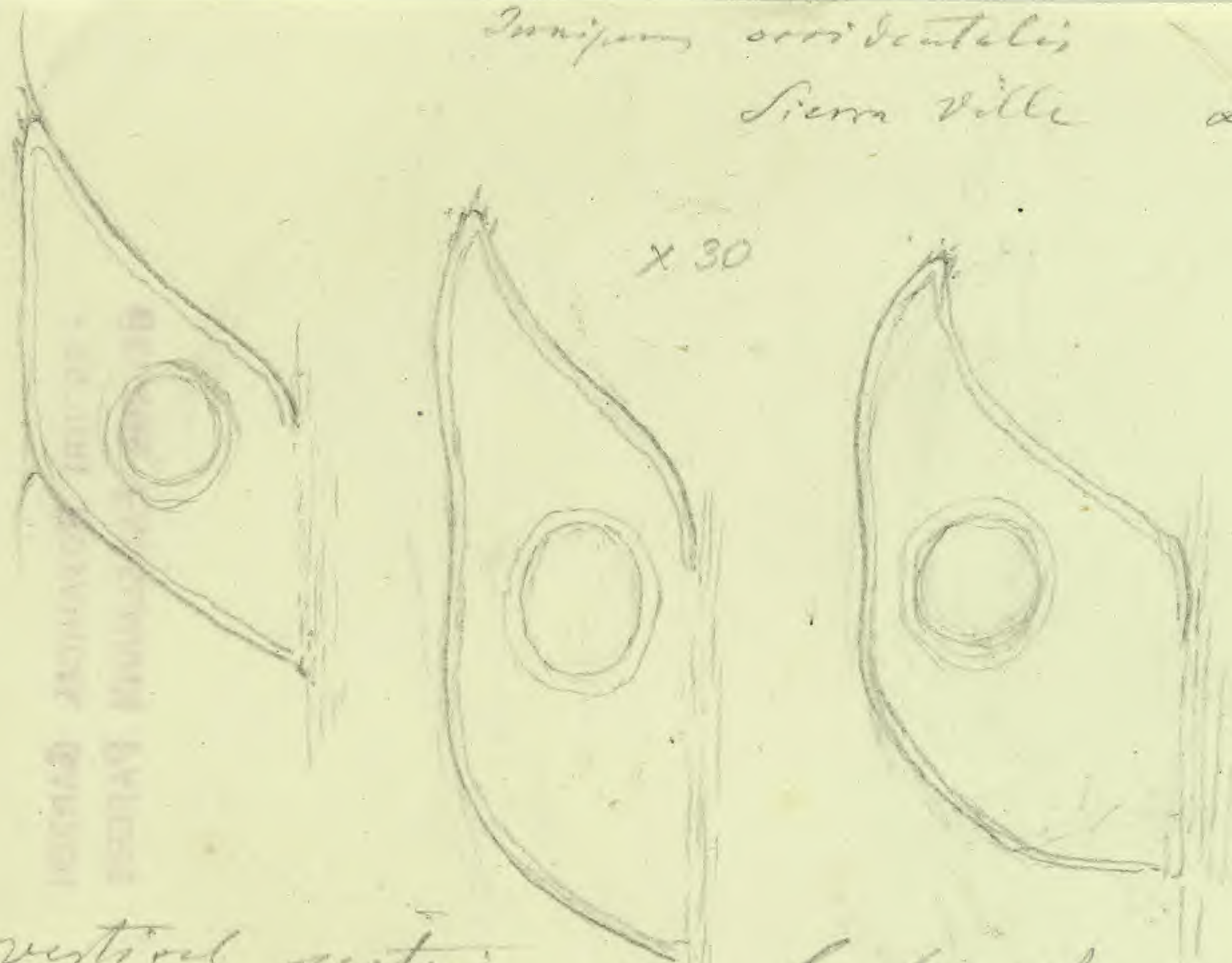


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Juniperus occidentalis
Sierra Villa

Simmons

March 7 1876



vertical section of leaves of same branchlet
showing circular or slightly oval duct or cell
always separated from the epidermis by a
thicker or thinner layer of parenchyma cells



0 1 2 3 4 5 6 7 8 9 10

cm

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cm

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Juniperus occidentalis

Jan 10 1874

x 2

Monolake Sept

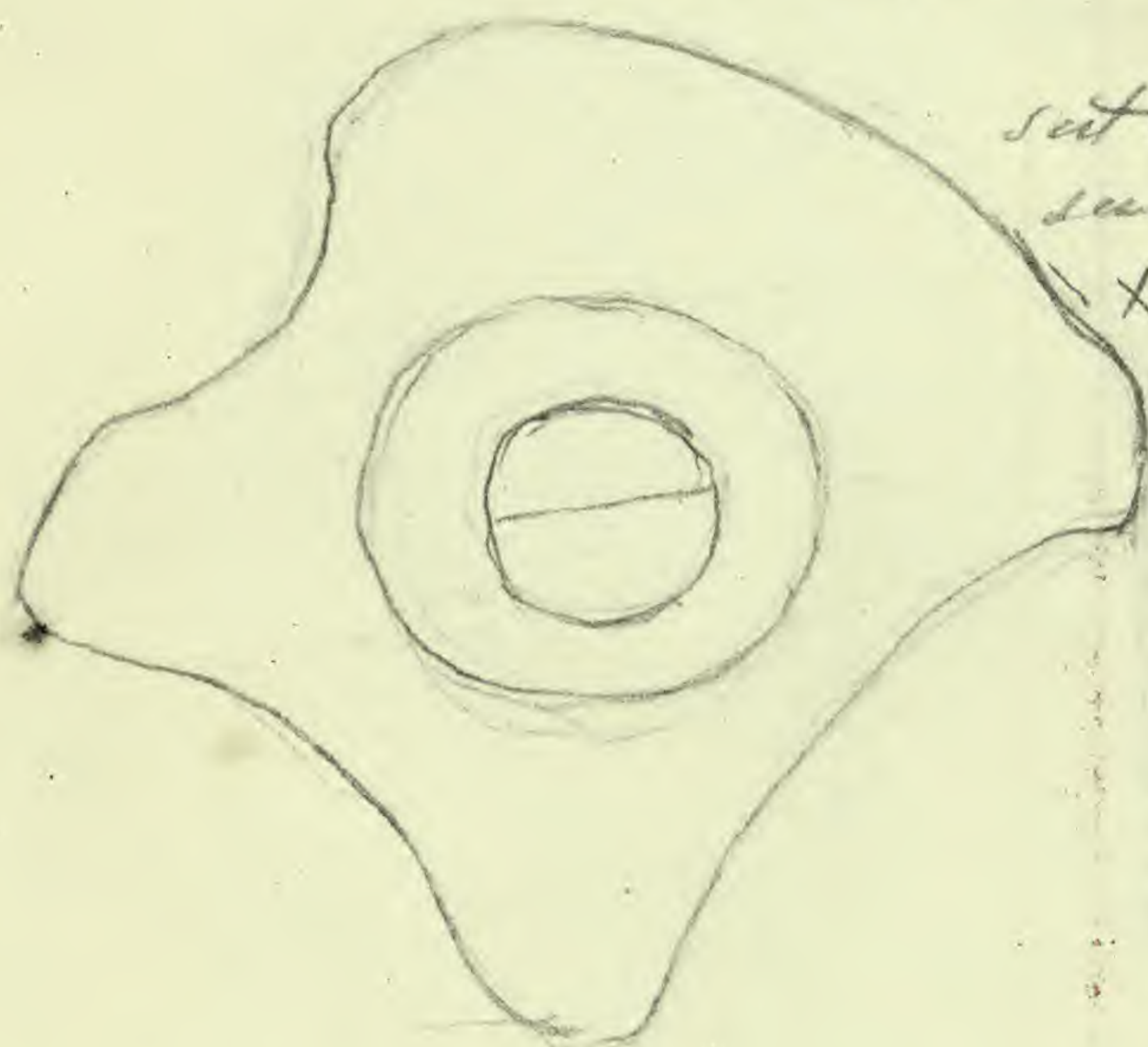
Bolander

2-3 seeds. ($6\frac{1}{2} \times 4\frac{1}{2}$ mm)

resin receptacles abundant about
the seed and impressions of the same



2x3 fruit scales,
upper not distinguishable



set of
seed
x 10

2. Cotyledons

base of berry x 10



seed x 2



lateral

ventral



3 seeds, section
receptacles of resin



2 seeds



single seed



0
cm

1

2

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9

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18260



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cm

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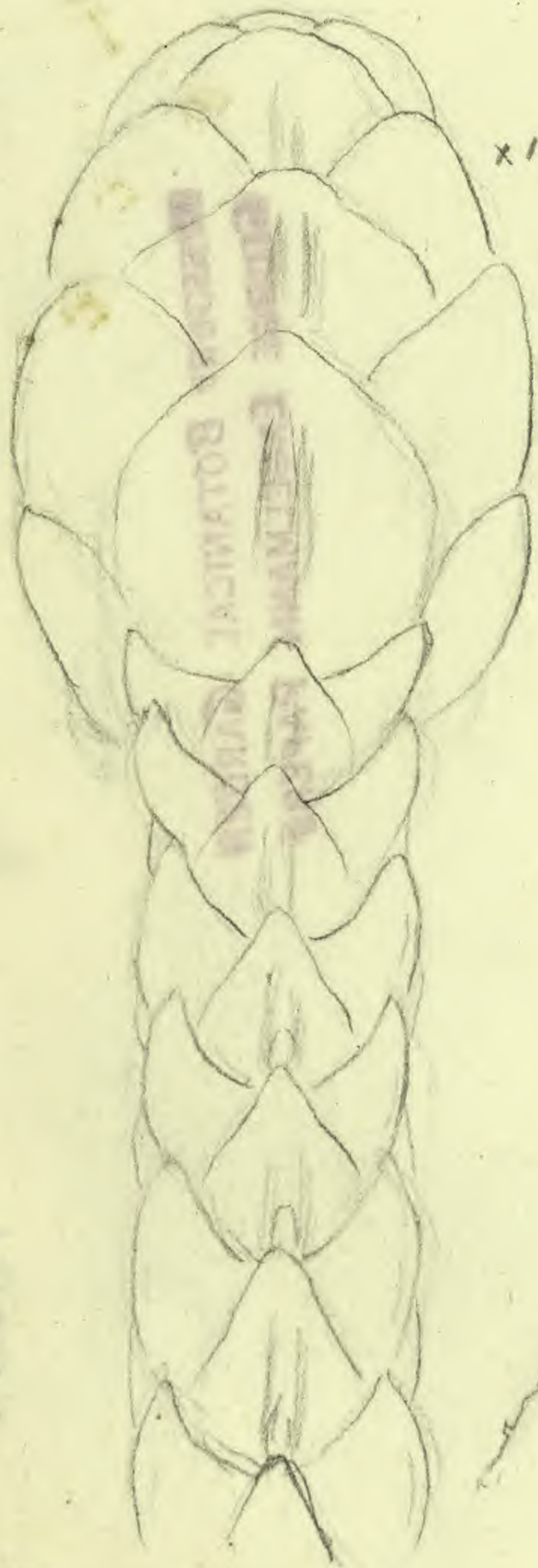
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23

Juniperus occidentalis

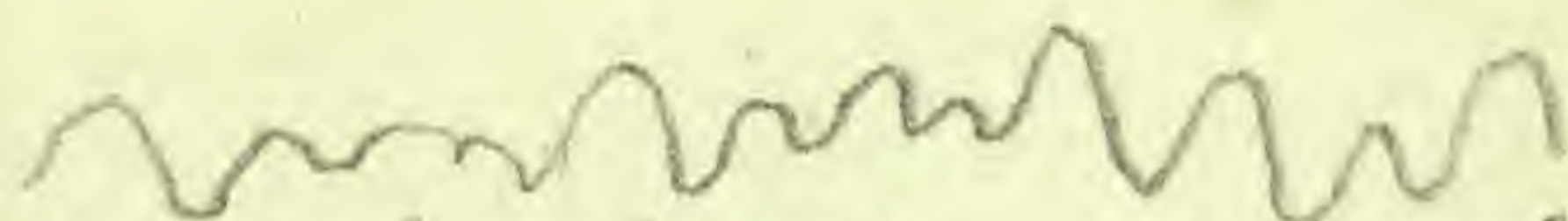
Dec 19 1873

Mono Lake, Bolander Sept 1873



x10

x10



edge of scale

x280



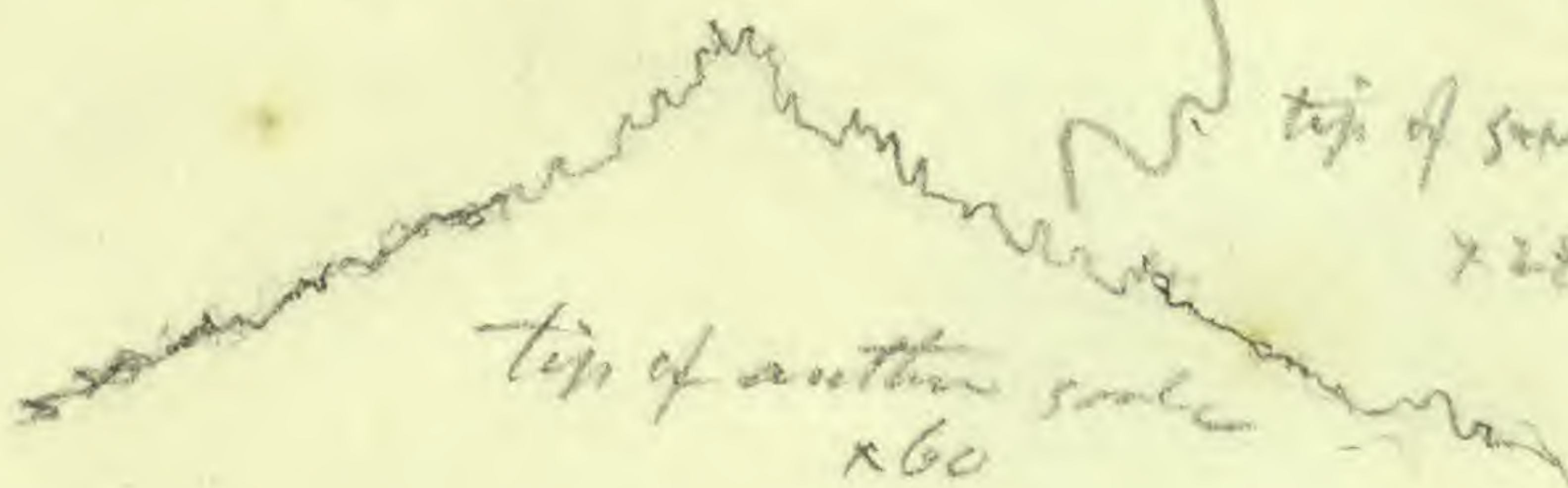
inside of gill
grows another scale
with 6 cells



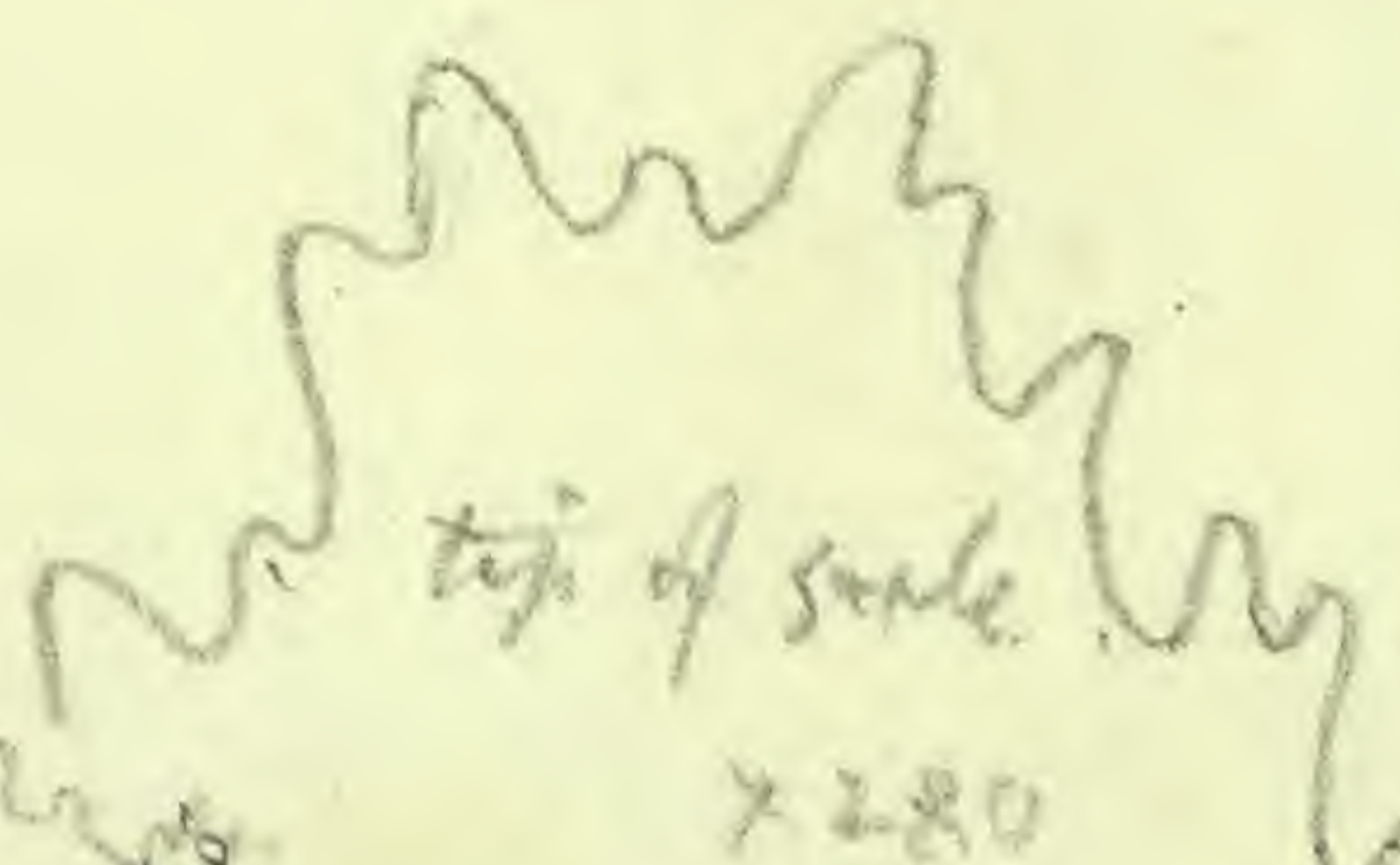
Pollen



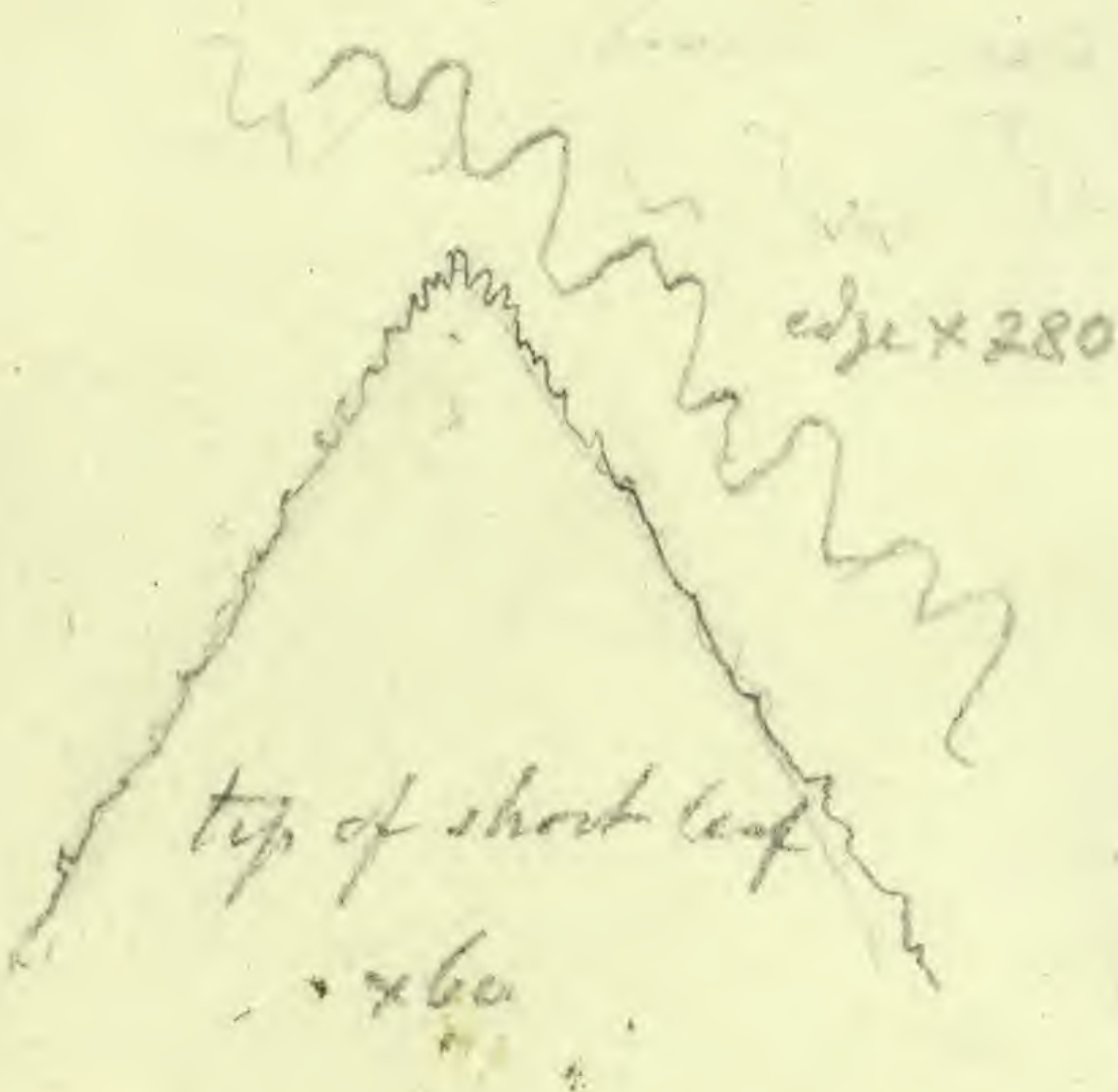
$\frac{10.5}{4.15} = 2.54$ mm
0.025



tip of anther scale
x60



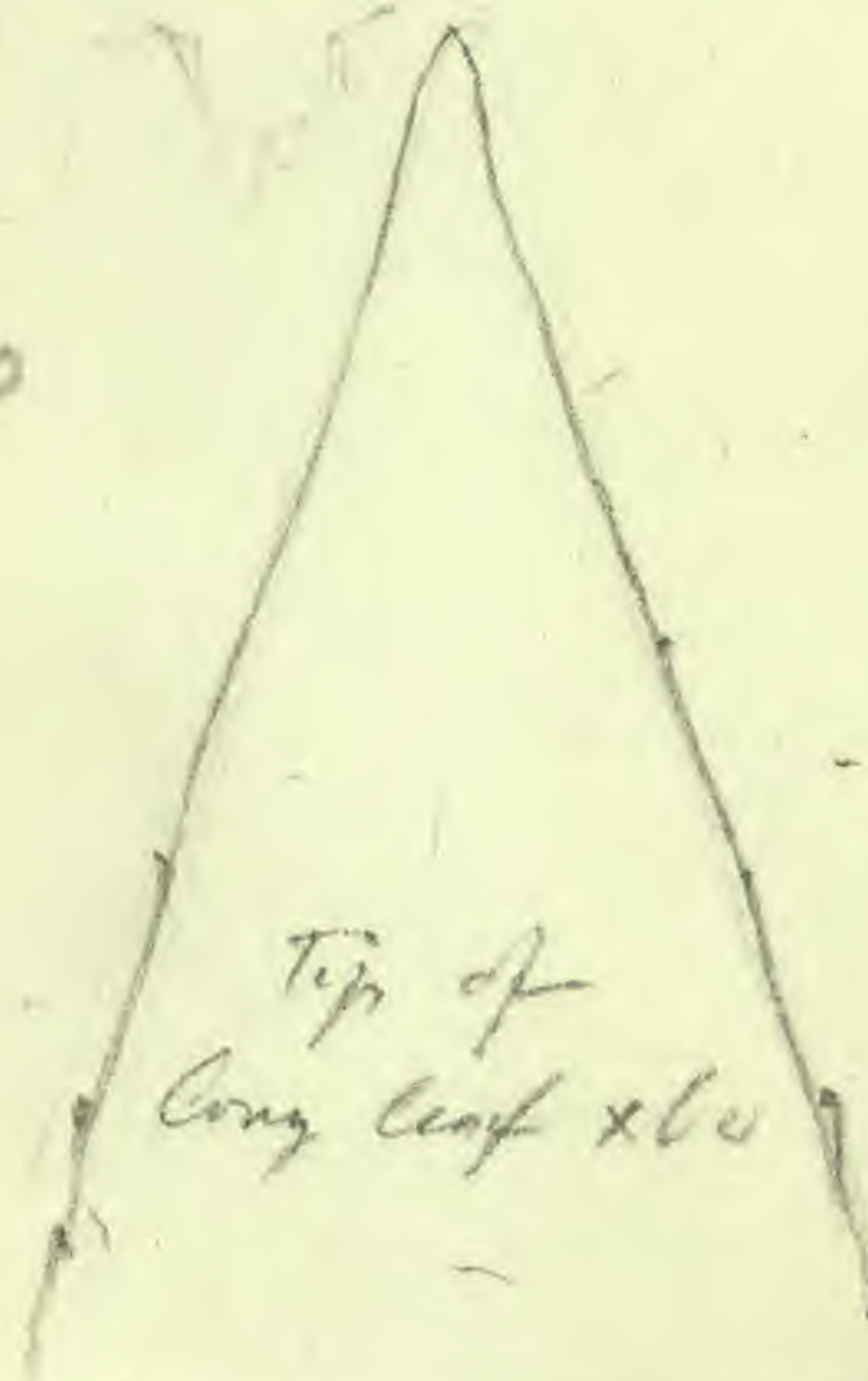
tip of scale
x280



edge x280

tip of short leaf

x60



Tip of
long leaf x60



$\frac{10.5}{4.15} = 2.54$ mm
0.025



0 1 2 3 4 5 6 7 8 9 10
cm

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0 1 2 3 4 5 6 7 8 9 10

cm

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Juniper occidentalis

Camp Harney, Oregon, Capt Bendire

May 28 1875

Jan. 1875

x10



smaller, 4-farion
branchlet

x10



usually 2x
farion

memes of resin
off exuding from glands

monocarpous
x2



scales in 2's



scales in 3's

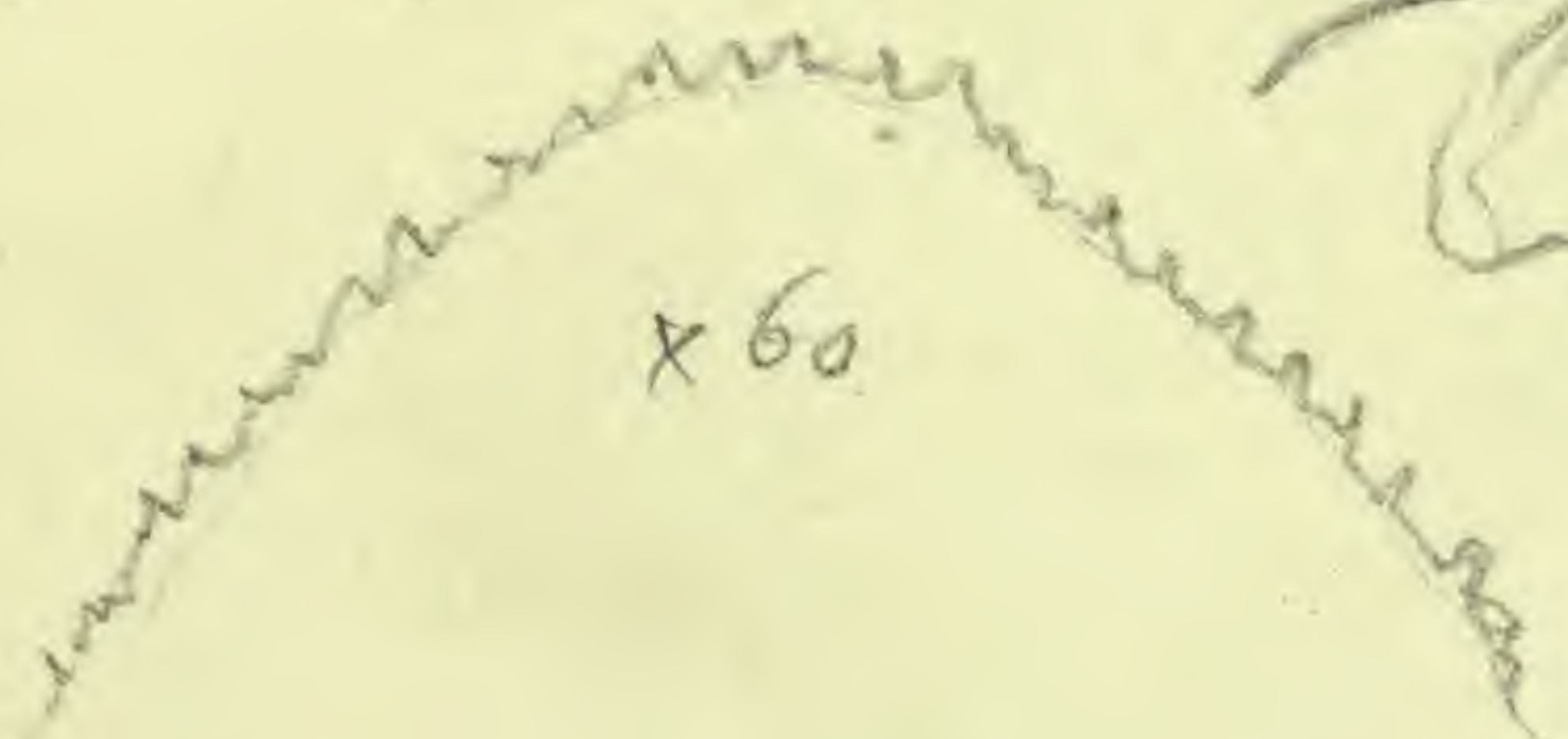
x2



seeds mostly
single
or 2 flattened

oil bags

x60



top edge of leaf x280



x10

base of
fruit

top of
anther
vase
x280



immature
ament (Jan)

x10



0
cm

1

2

3

4

5

6

7

8

9

10

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JONES & LETCH
Druggists
Cor. Fifth & Market Sts. ST. LOUIS, MO.
J. H. Klemick & Co. 36 N. Main St.

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GEORGE ENGELMANN PAPERS

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0
cm

1

2

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Freemont

Dec 22 1873

Freemont 388

Calif. 1846

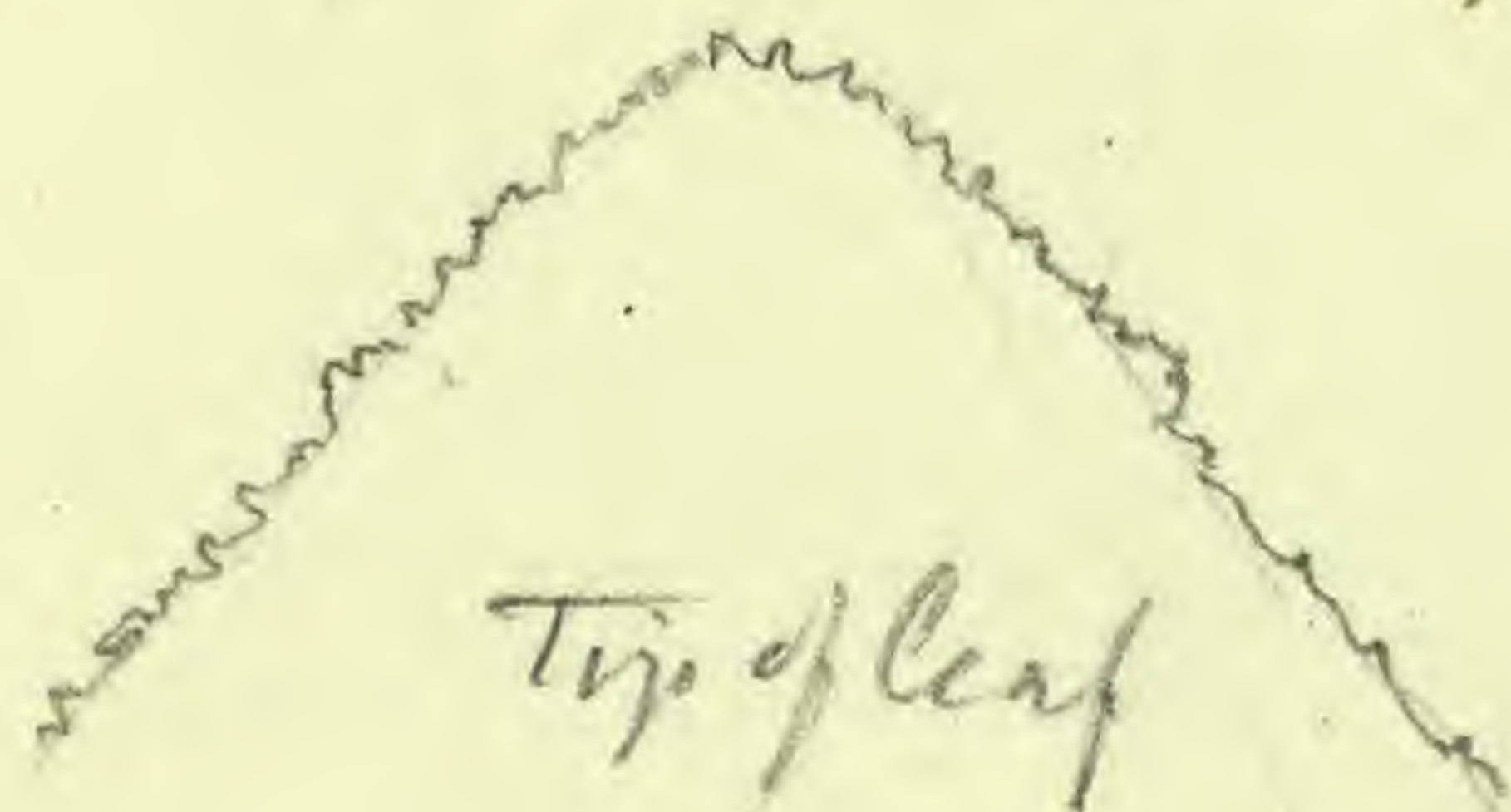
= 387

and no doubt from same locality
Klamath River

larger bracteoles 6 perianths

smaller ones

4 perianths



Tip of leaf

x 10



4 perianths



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cm

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0 1 2 3 4 5 6 7 8 9 10

cm

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Juniper

Jan 12 1874

Fremont 387

Calif. Exp. 1846 Ford of the Klamath River
(*Agave* sp. Herb)

collected probably in July or August,
albumen already present, but
embryo not developed

x 2



fruit scales in 3^2 , in smaller ones in 2^3

x 2



section



resin vesicles

seeds in all fruits examined, 2

x 10



fol. terma



fol. bina

x 280

edge of leaf



0

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cm

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cm

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Juniper

Jan 9 1874

seed x 10

Cosignianthus common shrub.

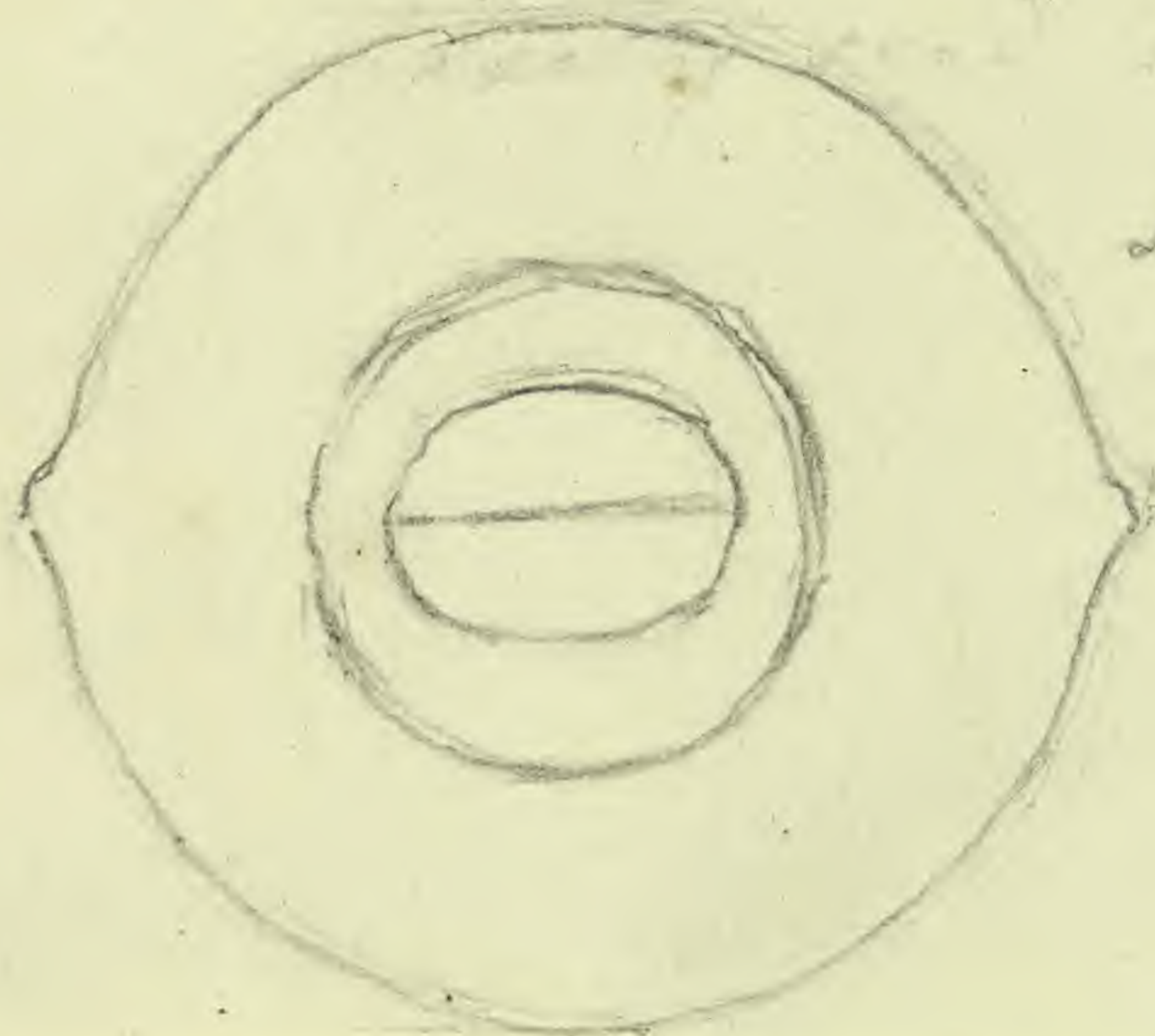
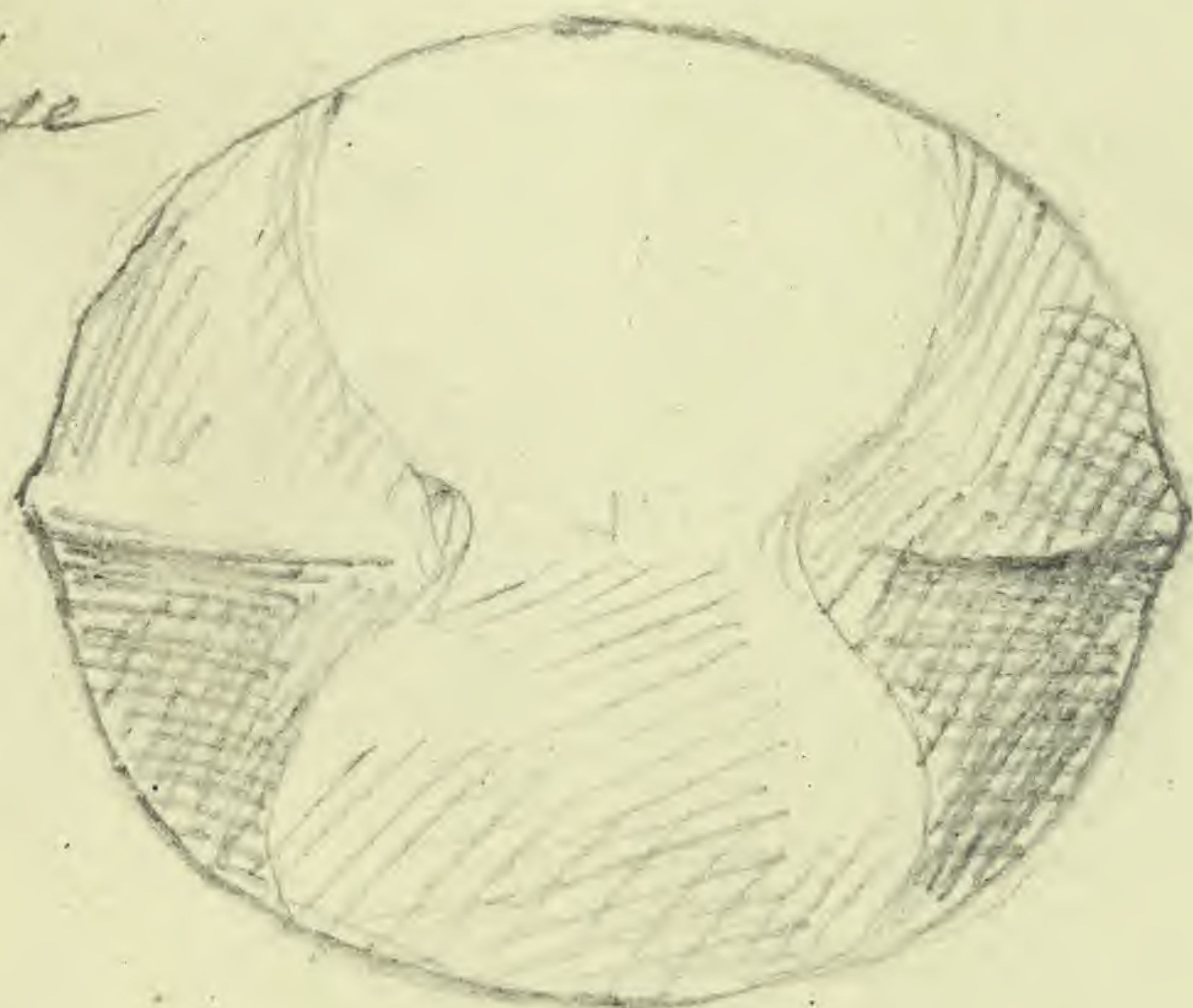
Octob 1846

229 *Swartzia*

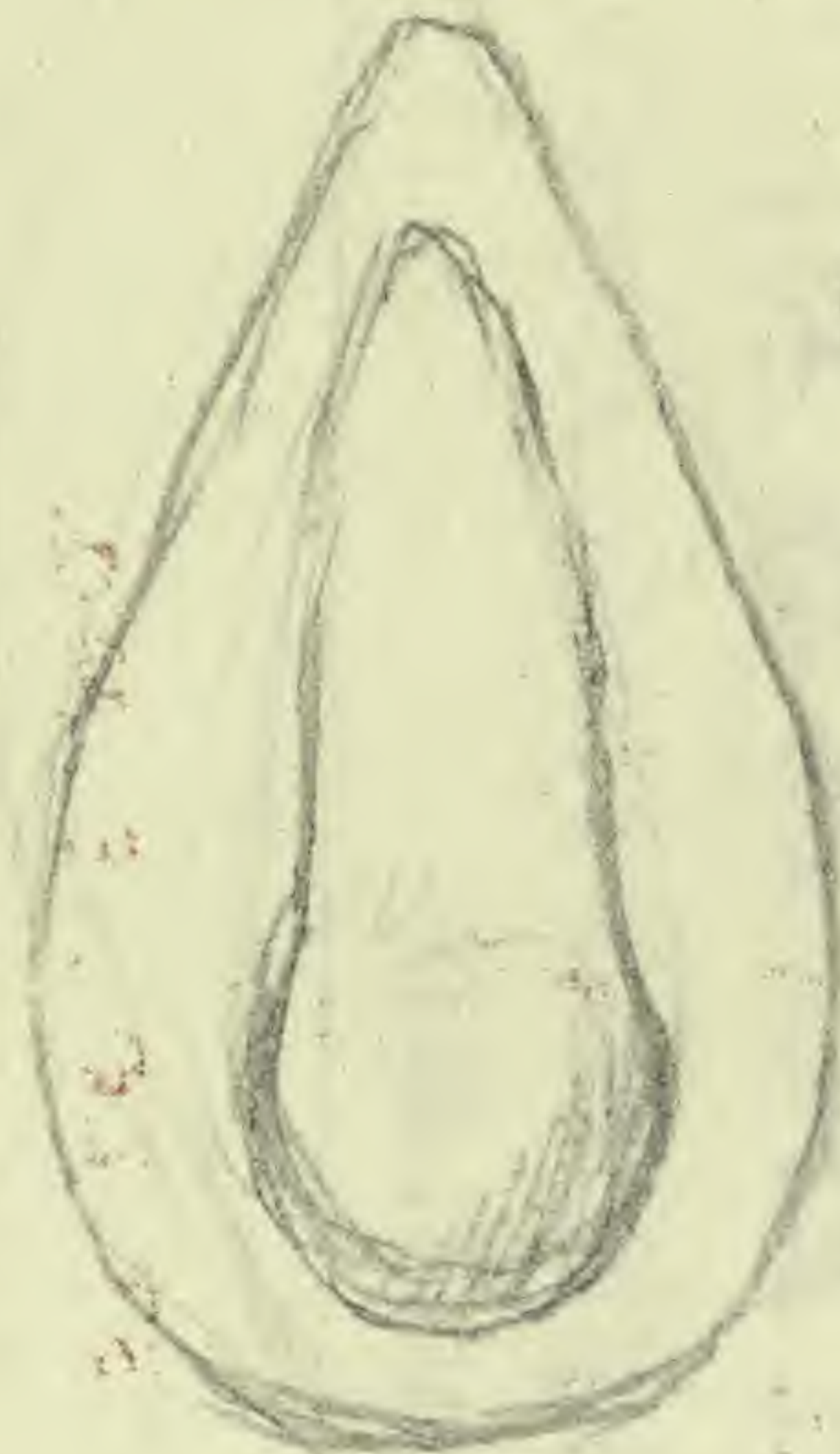
base



oil grooves



section



ablation

x Embryo

x 10

Embryo



embryo lateral

showing

2 cotyledons



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cm

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cm

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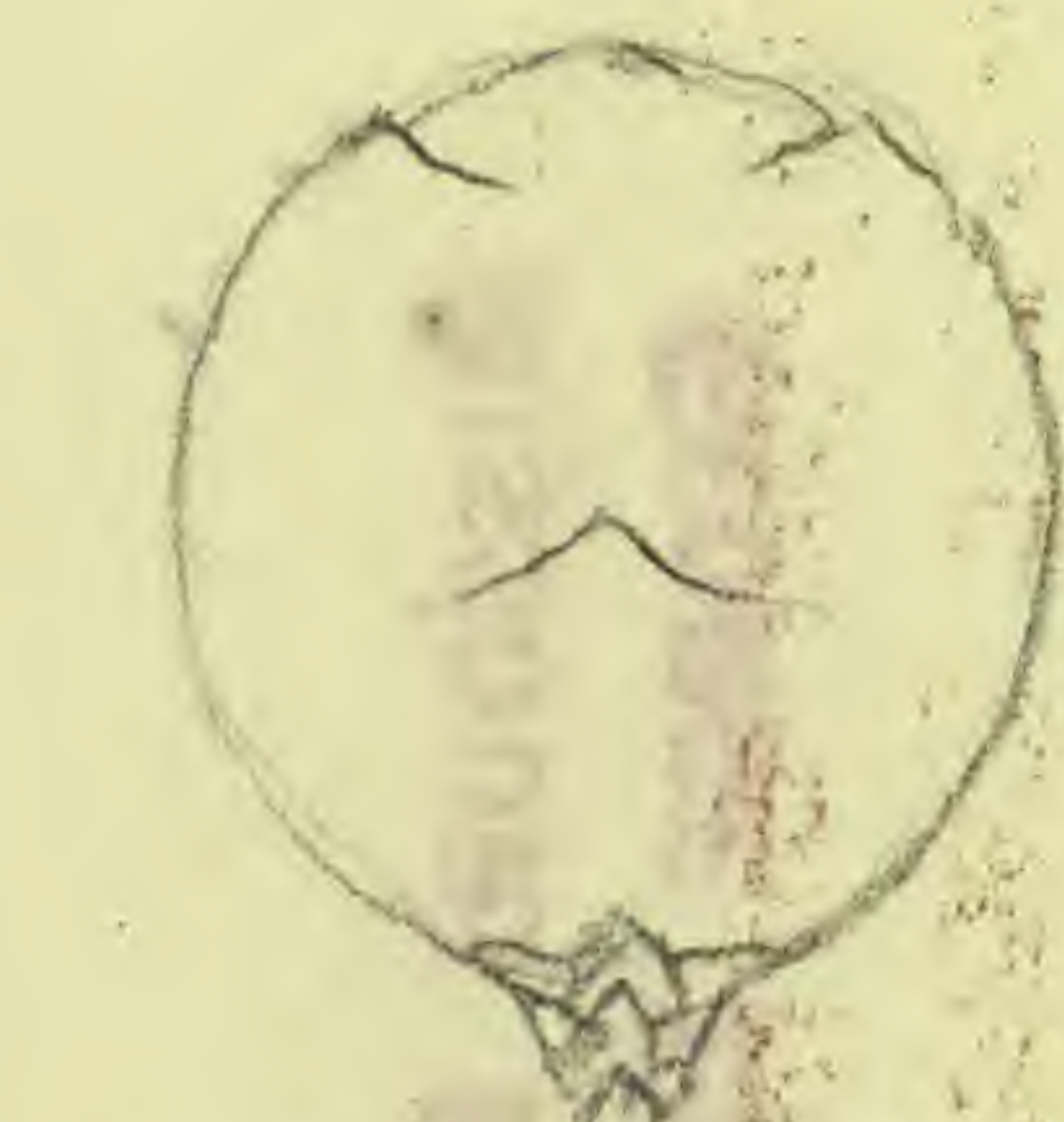
Juniperus

Febr 18 1874

Northern California . U.S. Expl. Exped. Capt Wilkes

Hb. Agriculture Dep

x2



scales in 3



3 seeds

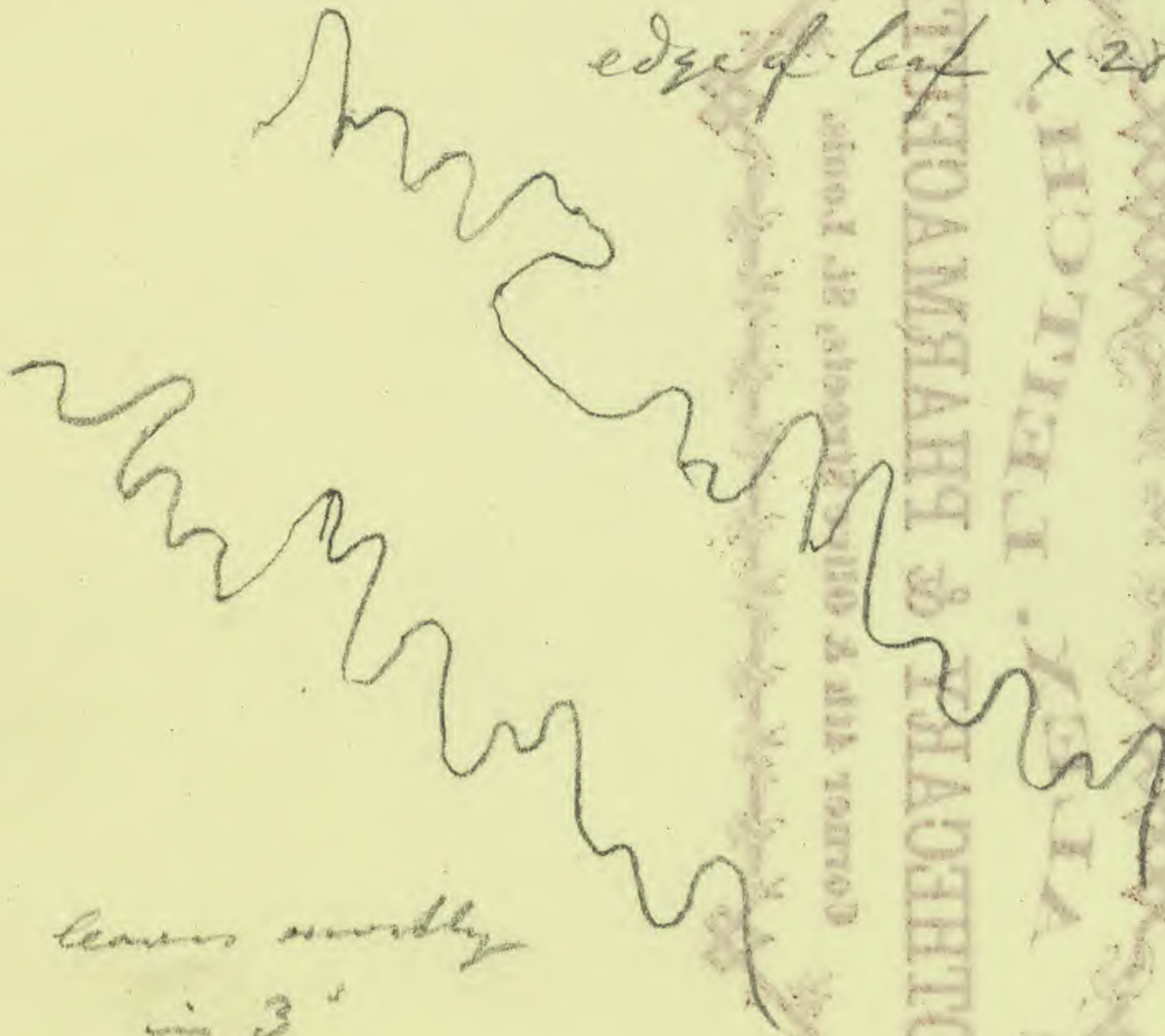


scales in 2



2 seeds

edge of leaf x280



leaves mostly
in 3's



0 1 2 3 4 5 6 7 8 9 10

cm

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Juniperus

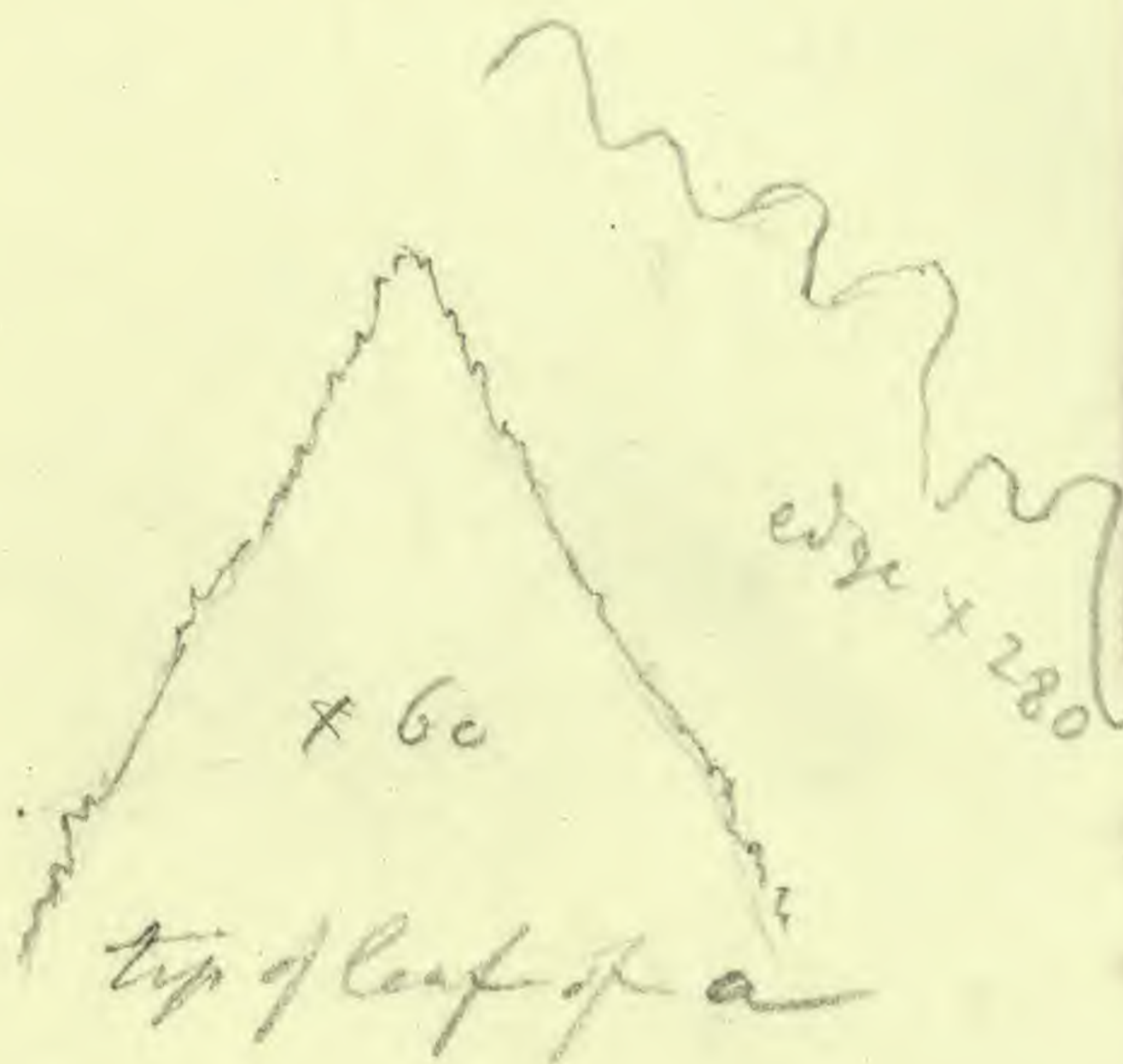
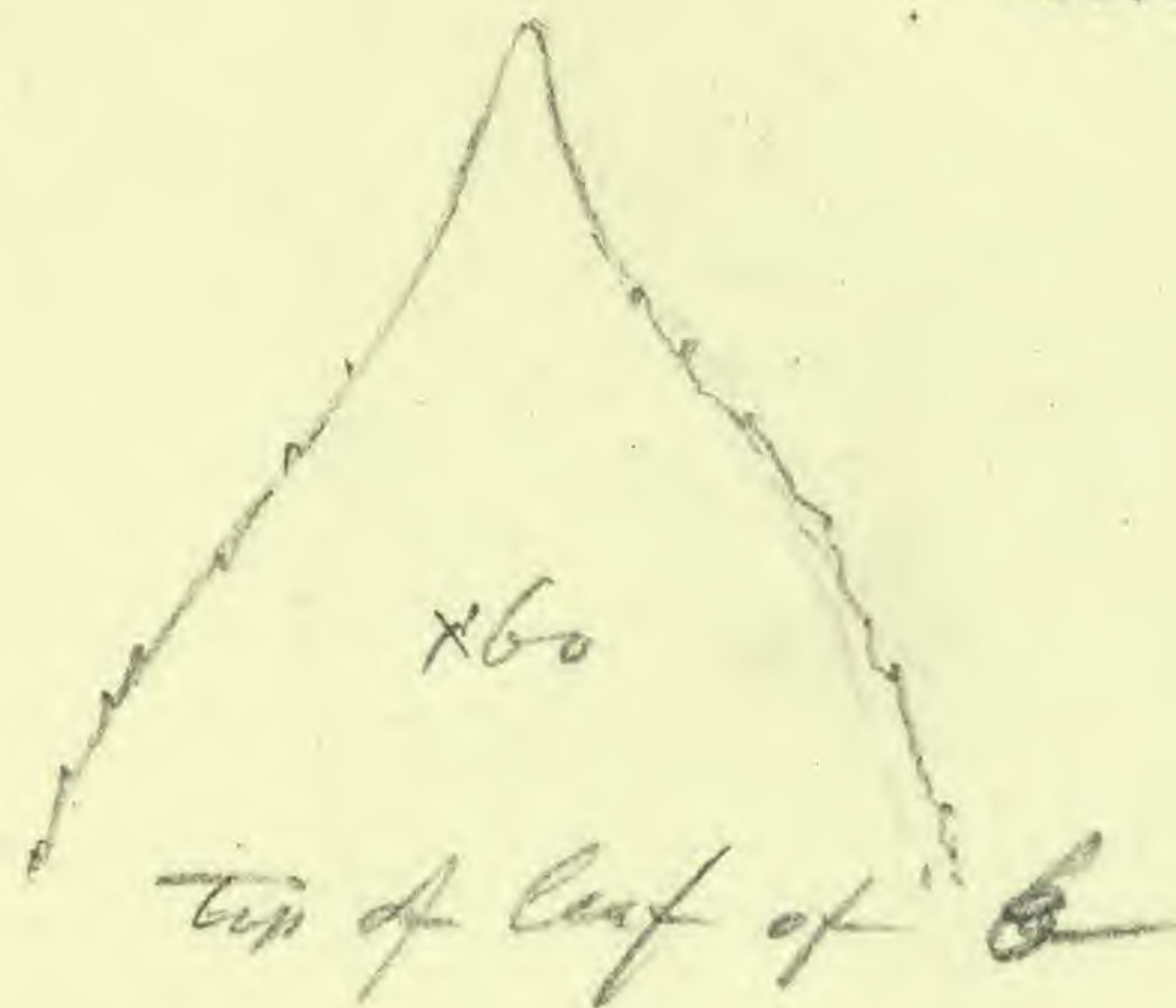
Mex ?

ottd ?

Dec 21 1873

Cosiquiriachi, W. Slizum 229
Oct 1846

x10



seed single x2



edge x280



0 1 2 3 4 5 6 7 8 9 10

cm

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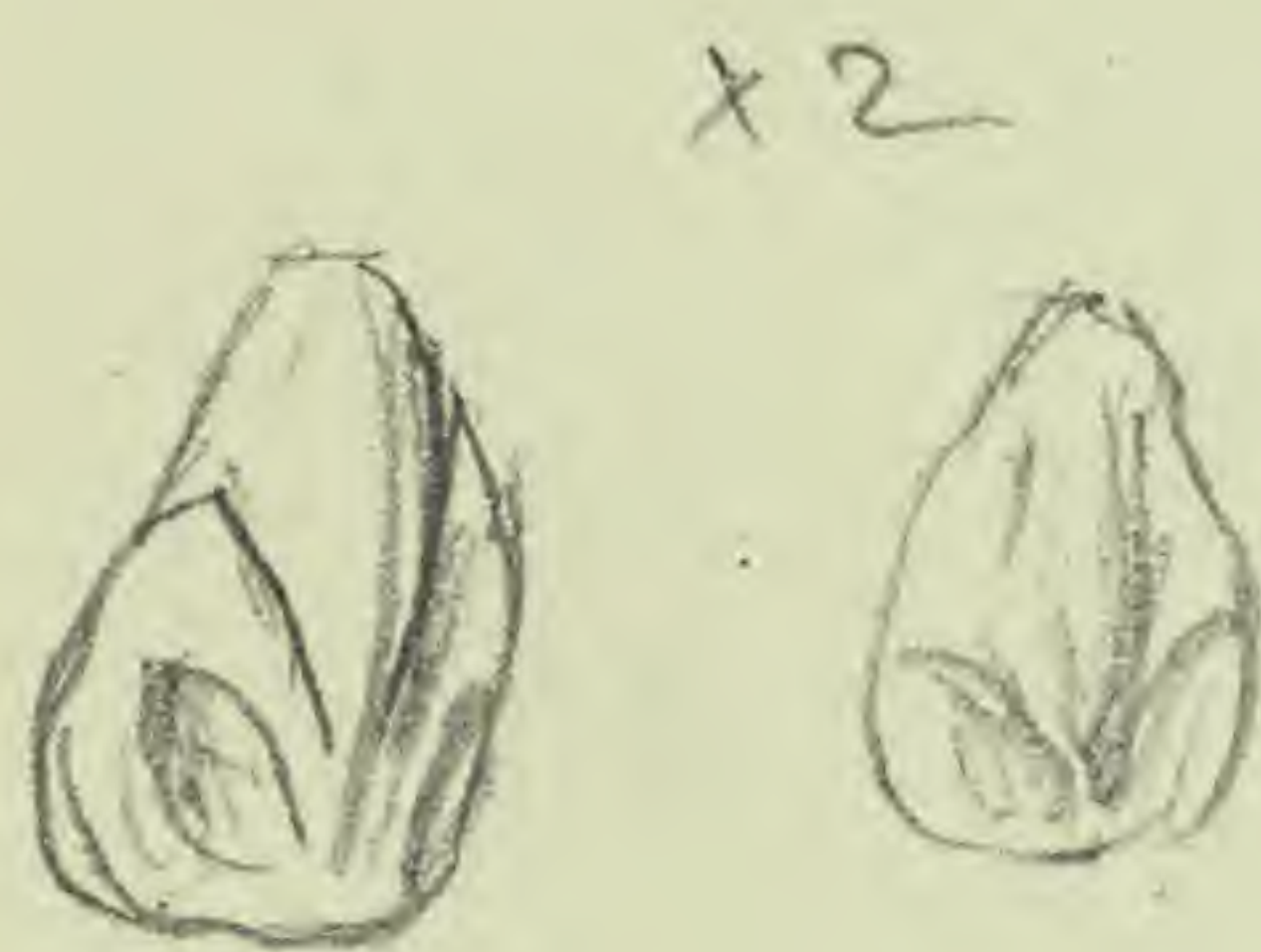
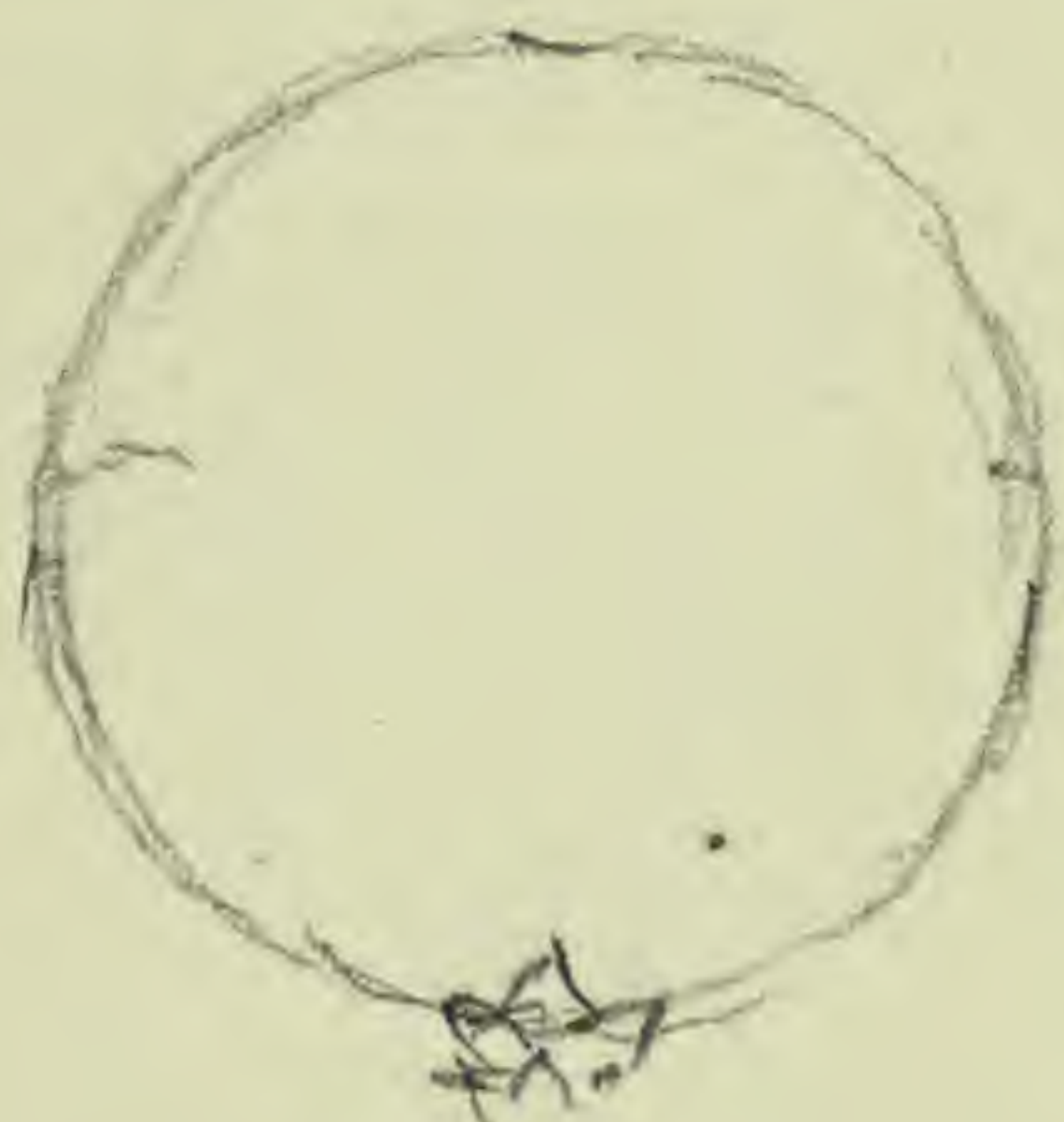
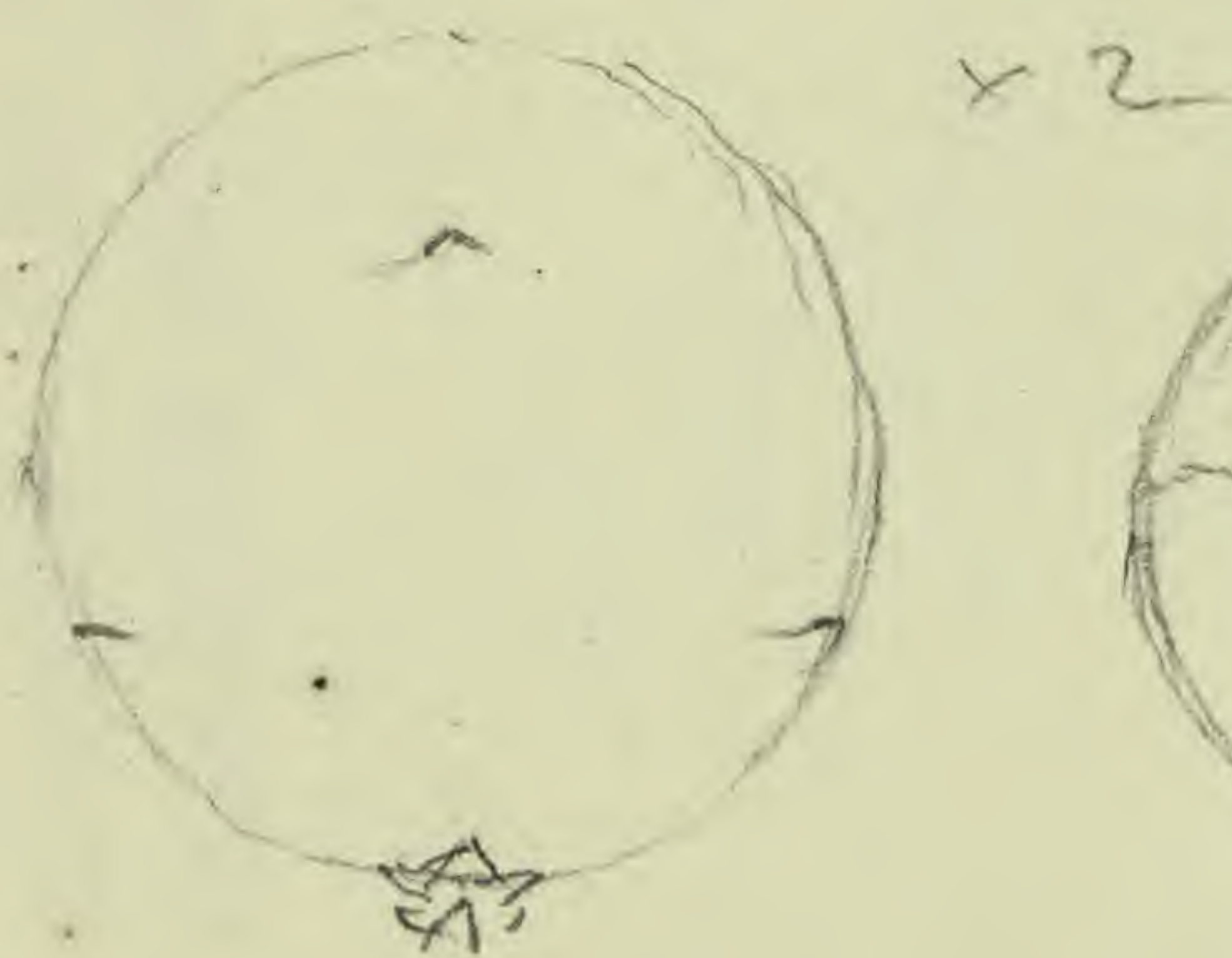


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Juniper. dealbata

June 23 1874

Hager & Schenck mis 1874



= occidentalis

black globose fruit
scales in 2's

4-6 or 7 seeds
fr. very resinous, seeds full of
grooves for oil vesicles



0 1 2 3 4 5 6 7 8 9 10

cm

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Nuttall Cog.
X10

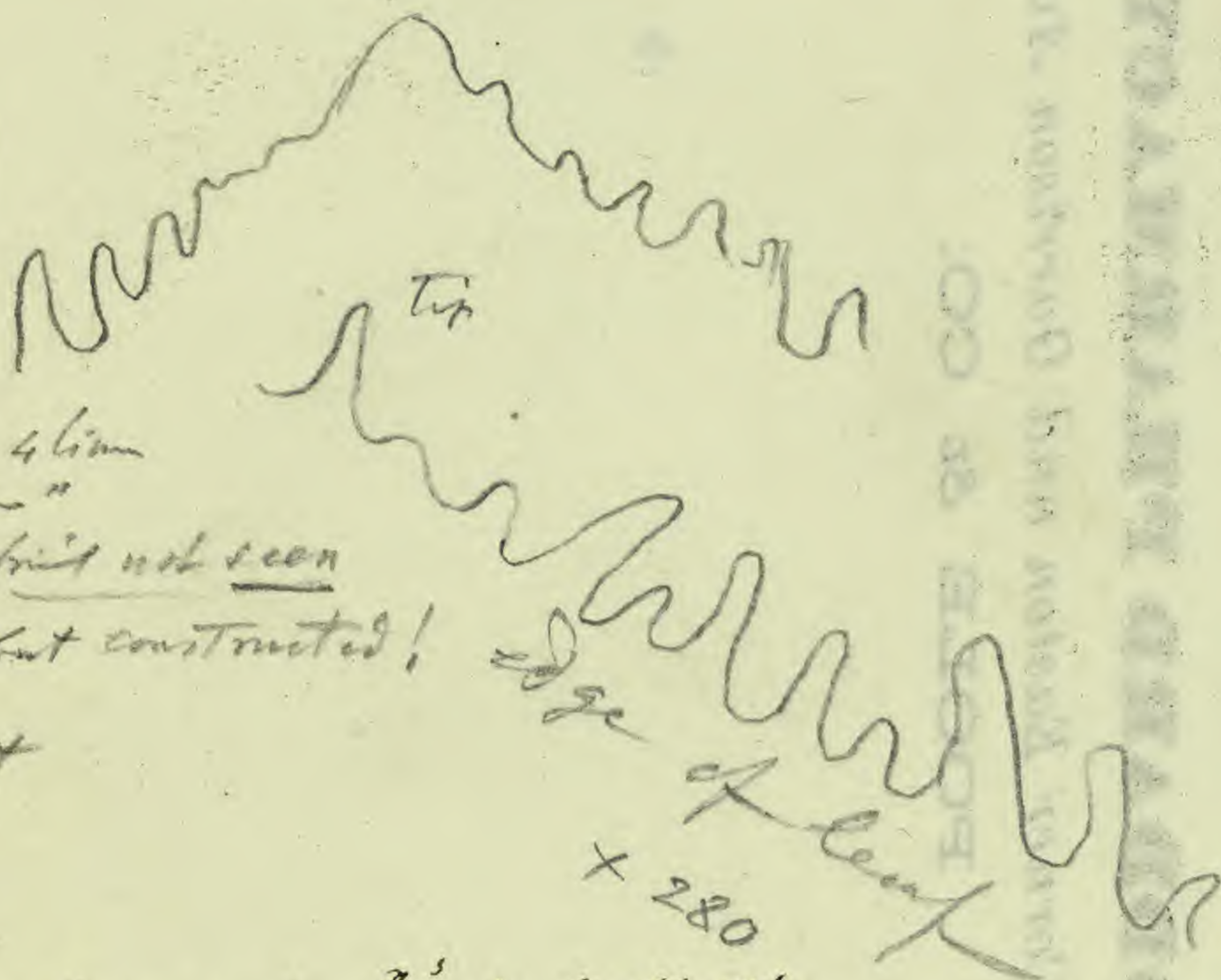
L. Andina Nutt !
Rocky mts. ex Herb Gray

Jan 22 1874



"size of fruit 4 lines
diam"

leaves always fruit not seen
in 3's but constructed!
branchlets stout



Leaves always in 3's in Nuttall's own specimen
but "folia quadrifaria" in his description - Sylva
III pag 95 tab 110



0 1 2 3 4 5 6 7 8 9 10

cm

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POOLE & CO.

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cm

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"Juniperus Canadensis Kellogg"

Jan 16 1874

California (no locality) Brainerd misit under this name, perhaps
not Kellogg's plant.



edge of leaf
x280



scale x3



x2

scales in pairs



seed x2
single



0

1

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cm

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